



U E L P H

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IN THIS ISSUE

- 2 RENOVATIONS under way for Learning Opportunities Program.
- 4 U OF G joins in potentially life-saving research.
- 4 STUDY detects carcinogen in human breast milk.
- 6 IS IT time for a change?
- 7 HEALTH and Performance Centre co-ordinator finds her job a perfect fit.
- 8 COMMERCE students let the games begin.
- 9 OVC researchers take a shot at saving bighorn sheep from devastating disease.

Ridgetown Project Gets a Boost

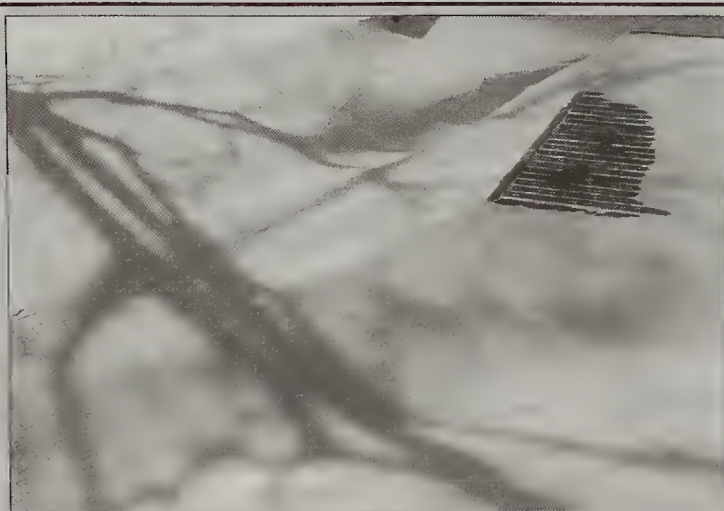
Pioneer Hi-Bred Limited pledges \$200,000 towards new conference centre

RIDGETOWN COLLEGE has received the first major commitment towards its \$6.1-million Millennium Project. Pioneer Hi-Bred Limited has pledged \$200,000 to the college's campaign to raise money for a conference centre.

The centre will have a wide range of uses, says Ridgetown director Gary Ablett. It will include conference, athletic and classroom facilities that can be used by students, the agriculture and horticulture sectors and the general community. The centre will enhance the college's role as the region's predominant educational, research and outreach resource for agribusiness, he says. Ridgetown hopes to raise the \$6.1 million from government, corporations, alumni and individuals. "We would like to begin construction sometime this year and have the centre open in the year 2000," says Ablett. "It's an ambitious target."

U of G is scheduled to launch a

Continued on page 10



A BENCHMARK SNOWFALL

This bench on Winegard Walk was barely visible after Mother Nature dumped 40 centimetres of snow during the first weekend of January. Grounds staff had to kick into overdrive to clear the snow and have been kept busy plowing and shovelling ever since. See story on page 5.

PHOTO BY MARTIN SCHWALBE

Stopping the Brain Drain

Province commits \$50 million to keep talented young researchers in Ontario

A NEW \$75-MILLION provincial program intended to reverse a "brain drain" of talented young researchers from Ontario will be headed by former U of G president Bill Winegard.

Queen's Park has committed \$50 million toward the new 10-year program, called the Premier's Research Excellence Awards, to help researchers attract and retain talented graduate students, post-doctoral fellows and research associates. That provincial contribution is expected to be matched by a hoped-for total of \$25 million from research institutions or the private sector.

A board of directors chaired by Winegard, who served as U of G president between 1967 and 1975, will review applications submitted for the first funding round by Feb. 1 and will announce award winners early in the spring, according to a news release from Queen's Park.

Each year, up to 50 Ontario-based researchers will receive a total of \$5 million from the province, with another \$2.5 million a year to be raised from research institutions, corporations and businesses.

Prof. Larry Milligan, vice-president (research), says Guelph will apply for the first funding round. U of G is co-ordinating its funding application through the Vice-President Academic's Council

and discussions with deans.

"I see the program as one in which there is very specific recognition of our younger rising stars in research," says Milligan, adding that "a remaining fundamental problem is still the base funding level of our institutions."

Under the new program, successful faculty will receive \$100,000 from the province, to be matched by \$50,000 from other sources. Only full-time faculty employed for up to eight years are eligible.

Faculty must use the funding to pay salaries of graduate or post-doctoral students or research associates, to cover travel and expenses for conferences, and to pay for direct research costs. The new program does not cover costs of equipment or the faculty member's salary.

"The province comes up with the \$100,000 for individual faculty members, but the University has to find the \$50,000 in matching funding," says Prof. Ross Hallett, Physics, who is involved in developing U of G's funding submission for this new award and for funding under the Canada Foundation for Innovation and Ontario Research and Development Challenge Fund programs.

Hallett anticipates that Guelph will do well in the initial competition. "Because Guelph is a research-intensive university, it certainly

means we've hired excellent people in the recent past," he says, explaining that U of G will concentrate in this first round on faculty nearing their eight-year milestone at Guelph.

The new program is a sign that the government recognizes the chronic underfunding of Ontario universities, says Wayne Marsh, director of research services, but he is concerned about the province's limitation of the awards to the physical, natural and life sciences, engineering, mathematics, health sciences and environmental sciences.

The program was announced in the spring budget and inaugurated last month by Jim Wilson, minister of energy, science and technology. The awards "will support innovation and help to keep our best and brightest young researchers here at home," said Wilson in launching the program. "These awards will honour Ontario's world-class researchers — the Nobel Prize winners of the future — and help them attract talented people to their research teams."

Winegard chairs a nine-member review board that includes academic and business leaders. Milligan lauds Winegard's appointment, noting that he has "phenomenal credentials" in academia and government, having been both a U of G president and a federal minister of science.

BY ANDREW VOWLES

OAC Marks 125 Years

Campus, alumni, partners and friends invited to join anniversary festivities

This year, U of G celebrates the 125th anniversary of the Ontario Agricultural College and the earliest genealogy of the University itself. U of G is the only university in North America that grew from an agricultural college.

"The University of Guelph enjoys a unique and illustrious heritage in its agricultural beginnings," says president Mordechai Rozanski. "OAC has played a significant role in the history of the University and is still one of the most innovative colleges on campus. OAC and its alumni have given us a remarkable legacy as the college has risen to prominence as Canada's premier centre for agri-food, environmental and rural education, research, analytical services and outreach."

OAC dean Rob McLaughlin says it's important to "celebrate our past achievements and to recognize our present and future strengths. I hope the campus community, as well as our alumni, partners and friends, will join in the festivities."

The anniversary year will kick off Jan. 29 with two events that will recognize some of the key partners who have worked alongside OAC throughout its 125 years. The year 1999 is also the 125th anniversary of provincial government support for agricultural education, notes Rozanski. The relationship that began when the provincial government founded an agricultural college at Guelph in 1874 endures today in the form of an enhanced partnership agreement between U of G and the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), which has cemented Guelph's leadership role in agri-food education and research.

The OAC 125 launch at noon will host a number of alumni and corporate donors whose support of U of G's ACCESS scholarship program has provided financial assistance to OAC students. Norris Hoag, Ontario's assistant deputy minister of agriculture, will congratulate the first students to re-

Continued on page 3



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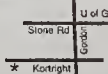
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UC Renovations Under Way for Learning Opportunities Program

Multipurpose space will accommodate programming and examination needs

HALF OF THE BOO BAR on Level 3 of the University Centre is being renovated this month to create a multipurpose space for the Centre for Students with Disabilities, Career Services and Co-operative Education Services (CES).

It will provide space for students with disabilities to write exams and will double as interview rooms for co-op and off-campus recruiting.

The reception desks for the three units will move to the new location, taking the hub of activity for these functions away from the Office of Registrar Services to the south-end elevators, says Andre Auger, director of the Counselling and Student Resource Centre (CSRC).

The renovations, approved by the UC board in November, are Phase 1 of a construction project that is being made possible through special funding from the Ministry of Education and Training's Learning

Opportunities Task Force. Guelph was one of four universities to receive support from this special government fund, which was established to increase the participation of students with specific learning disabilities in post-secondary education.

The U of G submission highlighted the need for expanded space to accommodate programming and examination needs, says Auger. Of critical importance is the need for examination rooms (last fall, the Centre for Students with Disabilities proctored 1,066 examinations in rooms ranging from meeting rooms to staff offices) and at least one large room for group sessions. All these rooms need to be accessible to students after hours.

The first phase of construction could not be delayed until summer because the examination space is needed immediately, says Auger. To

minimize disruption, Phase 2, which will see renovations to CSRC, will be carried out in the summer.

During the Boo Bar renovations, there will be some disruption in traffic flow. Anyone wishing access to the Counselling Unit can still take the south elevators to the third floor, but those wishing access to all other units in CSRC, CES or Registrar Services need to use the north elevators. The construction crew is working as quickly as possible to reopen access to these units from the south elevators, says Auger. The work is scheduled to be completed by Feb. 19.

"Although the construction is an inconvenience, the expansion is very exciting," he says. "By having all the units housed in the south end of the third floor working collaboratively, the area is being reconfigured in a way that will bring benefits to all students."

Three Students Sought for Project Vision Advisory Group

THE HUMAN RIGHTS and Equity Office seeks one graduate student and two undergraduate students to participate in the project advisory group for Project Vision, an initiative focused on the participation of lesbians, gay men and bisexual and transgendered persons in university life and on creating an environment free from harassment or discrimination based on sexual orientation.

The office encourages applica-

tions from U/G/B/T people, particularly women, people of colour and persons with disabilities.

To submit your application or to obtain more information, call Celina Sousa at Ext. 6100 by Jan. 22 or send e-mail to csousa@hre.admin.uoguelph.ca.

Phase 1 of Project Vision was carried out from September 1997 to August 1998 and involved a literature review, a survey of 3,000 students, staff and faculty members,

and focus groups. Phase 2, now under way, will involve key informant interviews in February, consultation on proposed recommendations in March and a review of the Project Vision report in September.

For more information about Project Vision or to find out how you can get involved, call the HRE office at Ext. 3000, visit the Web site www.uoguelph.ca/hre or send e-mail to hreinfo@hre.admin.uoguelph.ca.

IN MEMORIAM

JOHN CARPENTER

Retired microbiology professor John Carpenter died Dec. 10 at the age of 78. A graduate of OAC, he was a faculty member at Guelph from 1945 to 1984. He is survived by his wife Ruth; three children, John of Chatsworth, Janet Raham of Marlbank and David of Beaumont, Alta.; and four grandchildren. A tree will be planted in his memory Sept. 19 at the Arboretum's Wall Custance Memorial Forest.

FRANCES MANSON

Frances Manson, a former off-campus housing officer at U of G, died Jan. 1 in Guelph at age 88. A 1932 graduate of the Macdonald Institute, she was employed at U of G from 1966 to 1975. She is survived by two children, Roslyn Grieve and John Haines; a stepson, John Manson; five grandchildren; and two great-grandchildren. A tree will be planted in her memory Sept. 19 at the Wall Custance Memorial Forest.

PERCY SMITH

A memorial tribute will be held April 17 at 2 p.m. at the Arboretum for University professor emeritus Percy Smith, who died Dec. 10 at the age of 84. A graduate of the University of Saskatchewan and the University of California, he joined U of G in 1970, serving as vice-president (academic) until 1976. He taught in the Department of Drama until his retirement in 1980, was named University professor emeritus in 1981 and became a fellow of the University in 1984. He is survived by his wife, Maureen Krissdottir, and four children, Kevin and Rhonda Taft, Valerie Warke and Sylvia Gill.

XIU-YING XU

Xiu-Ying Xu, a recent PhD graduate of the Department of Botany, died Dec. 4 in China. She was 35. She had attended U of G for seven years and was awarded her PhD in October 1998. A tree will be planted in her memory at the Wall Custance Memorial Forest by the Department of Botany.

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KUDOS FOR TRELIS

The Tri-University Group of Libraries will receive a certificate of merit for the TRELIS project at the Ontario Library Association (OLA) Super Conference this month in Toronto. The certificate recognizes the partnership and leadership qualities exhibited by TRELIS, a computer-based information resource system that gives students and faculty at Guelph, Waterloo and Wilfrid Laurier access to a wider range of resources. TRELIS will also be featured in the next issue of ACCESS, the OLA magazine.

UP, UP AND AWAY FOR UNITED WAY

U of G support for the United Way has reached an all-time high, with \$213,099 contributed for the 1998 campus campaign. With donations from faculty, staff, students and retirees in Guelph and colleges at Alfred, Kemptville and Ridgeway, the University's United Way effort sits at 112 per cent of goal and boasts a 31-per-cent participation rate.

NOMINATIONS SOUGHT FOR SELECTION COMMITTEE

The Senate Bylaws and Membership Committee is calling for nominations for the selection committee for the associate vice-president (academic). Chaired by provost and vice-president (academic) Iain Campbell, the committee will include a dean, three tenured faculty members from different colleges, one student and one regular full-time staff member. Members of the University community are invited to nominate faculty members, staff or students by Jan. 18 at noon. Nomination forms are available from the Senate office on Level 4 of the University Centre.

SENATE SECRETARY NAMED

Johanne Doucet, who has held a secondment position as associate secretary of Senate for the past nine months, was appointed secretary of Senate Dec. 14. Prior to the secondment, Doucet was academic assistant to the dean of FACS and was the B.A.Sc./B.Comm. program counsellor. She holds a bachelor's degree in management economics and MA in economics from Guelph and a master of industrial relations from the University of Toronto.

BIOLOGY WEEK JAN. 18 to 22

The CBS Student Council presents its annual Biology Week Jan. 18 to 22. Events include a career night Jan. 18 at 6:30 p.m. in Peter Clark Hall, a wine-and-cheese reception Jan. 19 from 7 to 9 p.m. in the University Club, a bus trip to Casino Niagara Jan. 20 leaving from the University Centre at 6:45 p.m., a beer and pizza night Jan. 21 from 6 to 9 p.m. at the Brass Taps and a ski trip to Blue Mountain Jan. 22, leaving from the Athletics Centre at 1 p.m. For details, call 824-6270.

OAC Heritage Celebrated

Continued from page 1



OAC's roots began on a 550-acre farm that would eventually grow into the University of Guelph. Originally operating out of a farmhouse, the college began expanding in the early 1890s. The artist's rendering above shows the college's new laboratory and residence in 1893.

ceive those awards. Hoag is a 1966 graduate of OAC and a classmate of federal agriculture minister Lyle Vanciel, who will be the guest of students that evening at the annual Aggie Good-Times Banquet.

The January issue of the *Guelph Alumnus* magazine will highlight the role OAC has played in Canadian agri-food, and a special supplement in the Jan. 29 issue of the *Guelph Mercury* will focus on the partnership between campus and city that has supported the growth of the University and is now making Guelph the country's premier agri-food centre.

Other events planned for the year include a series of lectures on agri-food topics, a heritage ball, symposia, an art show, Canada's biggest silent auction, a millennium conference to discuss the major forces shaping the global and Canadian agri-food systems and new books highlighting the college's history and research achievements.

A special OAC 125 planning committee, co-chaired by former college dean Clay Switzer and Don Blackburn, former director of the diploma program, has been busy organizing the 1999 anniversary and encouraging participation from Guelph's agri-food partners in government and industry, as well as alumni and all members of the campus community.

"We're looking forward to a wonderful year of celebrations to mark this momentous occasion," says Switzer.

One of the first projects completed by the anniversary committee is a book of accomplishments called *125 Years of Achievement*, which will be unwrapped at the launch party. Former OAC dean Freeman McEwen chaired the publication committee that identified 125 of the most important accomplishments the college has made with its partners.

A new OAC history, *The College on the Hill: A New History of the Ontario Agricultural College, 1874-1999*,

will be published in April. Its authors are Prof. Terry Crowley, History, and University professor emeritus Alexander Ross, who wrote the original *College on the Hill* for OAC's 100th anniversary.

Both books illustrate the changes that 125 years have brought to agriculture and education, while demonstrating that the agri-food sector has maintained its economic importance to the country and that Guelph expertise has maintained its importance to the agri-food sector.

To open the 1874 School of Agriculture and Experimental Farm, the provincial agriculture ministry purchased a 550-acre farm from

Larry Milligan, vice-president (research).

OMAFRA contributes more than \$50 million a year to support agri-food research and its infrastructure at Guelph, says Milligan, and OAC has played a key role in building that research base.

With OMAFRA support, OAC researchers have developed more than 100 new varieties of field crops, have perfected various reproductive technologies for livestock, and are leaders in fields such as animal welfare, biotechnology, international development and food safety.

"OAC continues to lead the way in research," says McLaughlin, "but we draw on people from all over the University community."

As a result, U of G is playing a key role in the growth of a Canadian agri-food quality cluster in Guelph, which is designed to enhance the competitiveness and integrity of the agri-food industry.

The presence of OMAFRA, branch offices of Agriculture and Agri-Food Canada, as well as many agri-food research and development laboratories in Guelph, reflects the expertise and reputation of the college and the University.

Guelph's OAC graduates are in increasing demand in the business world, where available jobs outstrip the number of graduates. The anniversary year will graduate the first class of the college's redesigned B.Sc.(Agr.) program, which incorporated workplace skill building into its curriculum after business leaders indicated these skills were highly sought in the workplace.

Each of those new graduates will receive a copy of *The College on the Hill: A New History of the Ontario Agricultural College, 1874-1999* as a memento of their personal achievement in the 125th anniversary year of the college.

Future issue of @Guelph will report on anniversary events as they occur. Updates are also posted on the OAC 125 Web site at www.oac.uoguelph.ca/OAC125.

PEOPLE

CIP DIRECTOR DISCUSSES INTERNATIONALIZATION OF UNIVERSITIES

Prof. Jim Shute, director of the Centre for International Programs, gave an invited lecture on Canadian university internationalization to U.K. university administrators in London, England, at a symposium titled "Internationalization: Is the U.K. Competing? A Commonwealth Perspective." The symposium was organized by the Association of Commonwealth Universities and the Commonwealth Higher Education Management Service.

ESSAY CONTEST EARNS STUDENT TRIP TO AFRICA

First-year student Sarah Hutchison of Belleville is one of three Canadian students to win World Vision Canada's annual 30-Hour Famine fundraising and essay contest. The winners are spending 10 days in Malawi, Africa, this month to witness first hand how World Vision's 30-Hour Famine Fund supports needy children overseas.

COLLABORATION WITH CHILE UNIVERSITY EXPLORED

Prof. Francesco Braga, Agricultural Business and Economics, travelled to Concepcion, Chile, in November, to give an MBA seminar at the University of Bio Bio on price risk management and the use of derivative instruments. U of G and Bio Bio recently signed a memorandum of understanding to further explore opportunities for collaborative projects between the two universities. Braga's visit was arranged by the Centre for International Programs and the University of Bio Bio, which also sponsored the trip.

PSYCHOLOGY PROFESSOR VISITS GREAT BRITAIN

Retired psychology professor David Piggins was a visiting fellow at the University of Wales (Bangor) during the fall and is a visiting fellow at Clare Hall at Cambridge this winter.

B of G Calls for Nominations

BOARD OF GOVERNORS is calling for nominations to elect a graduate student and two undergraduates to the board for a one-year term that begins July 1, 1999. All full- and part-time Guelph students are eligible, provided they are registered currently and will be registered for two of three semesters during the term of office.

Nominations must be submitted by Feb. 12 at 4 p.m. to the Board Secretariat office on UC Level 4. The undergraduate students will be elected during Central Student Association (CSA) elections March 1 to 5. The graduate student will be elected by mail ballot. Nomination forms are available from the board office, CSA, Graduate Students' Association, UC information desk, Student Housing Services, Connection Desk, and college directors, deans and chairs.

U of G Joins in Potentially Life-Saving Research

Guelph, Toronto, Western study possible use of transgenic pigs in human therapies

U OF G IS BREEDING and delivering pathogen-free transgenic pigs as part of the early stages of a collaborative research project on the possible use of animal tissues in human therapies.

Four years ago, Guelph veterinary scientists were invited by medical scientists at the universities of Toronto and Western Ontario to participate in the potentially life-saving work. U of G scientists have now reached an agreement with Imutran Ltd., a subsidiary of Novartis International, to support this and other relevant research at Guelph. The company has committed an estimated \$350,000 for Phase I of the project at Guelph; this will fund improvements to the University's animal-care infrastructure and provide support for ongoing research.

In Phase I, U of G will breed transgenic, high-health status pigs at its Central Animal Facility, then deliver them to the medical schools at Toronto and Western, where aspects of pre-clinical research will be conducted. The research will assess all aspects of the safety and efficacy of using pig organs as temporary or permanent organs in humans (this is known as xenotransplantation).

Ultimately, the goal is to save lives. Canada has the lowest donor-organ availability rate in the industrialized world, and more than half of the thousands of Canadians waiting for transplants each year do not receive the organs they need.

People have been receiving living pig tissue for 10 to 15 years, including porcine islet cells for diabetes and pig skin for burns. Patients suffering from blood poisoning have had a pig spleen temporarily attached outside their body, through which their blood is passed and cleaned.

Guelph's responsibility in the project is to breed and deliver animals of "absolutely superior health status," says Prof. Larry Milligan, vice-president (research). "This is an important first step. We are proud to be a part of something that has the potential to make a difference in so many people's lives."

Milligan says U of G is aware the project may raise questions because it could contribute to the eventual use of pig tissue in humans. "This is a controversial subject that will continue to be debated. In the meantime, however, this project supports discovery research that will undoubtedly yield knowledge we can use to improve the health status of livestock and possibly companion animals."

Guelph was approached to join the project because of its veterinary faculty expertise, its outstanding record in animal care and animal welfare, and its 30-year record in gnotobiotic research relevant to pathogen-free swine for breeding and food purposes. U of G is recognized internationally for its research expertise related to animals and continually receives high ratings from the Canadian Council for Animal Care, the federal agency responsible for assessing institutions that use animals for research.

Like all U of G research involving animals, this project was reviewed and approved by U of G's Animal-Care Committee. Chaired by Prof. Denna Benn, director of Animal-Care Services, the committee ensures that any proposed research is necessary and done in the least invasive way possible.

The transgenic pigs to be bred at Guelph carry an introduced gene that regulates the cellular expression of human decay accelerating factor

(DAF) in essentially every tissue of the animal. DAF is believed to protect tissue against a particularly sudden and violent immune-based response called hyper-acute rejection; this protection is vital for the success of pig-to-human organ transplants.

"Despite the presence of this foreign gene, these are normal looking pigs," says Peter Borgs, manager of the pig breeding project and a post-

doc in OVC's Department of Pathobiology. "Outwardly, they appear as common Yorkshire pigs displaying the typical range of behaviour, growth and reproductive traits."

Provided by Imutran, the pigs with the DAF gene were developed and bred in the United Kingdom and imported under guidelines established by Agriculture and Agri-Food Canada and Health Canada.

Pigs have been selected as the

most suitable species for the development because their organs share a physiological similarity to human organs and are approximately the same size, both in infancy and adulthood.

Financial support for Phase 2 of the project, to be headed by Prof. Danny Butler of OVC's Department of Clinical Studies, is currently being negotiated, but is estimated to be at least \$950,000 over three years.

BY LORI BONA HUNT

Study Detects Carcinogen in Human Breast Milk

Results are no reason for breast-feeding mothers to worry about harming their children

"MY 15 MINUTES OF FAME" is how Prof. David Josephy, Chemistry and Biochemistry, describes the blitz of media calls he received last month about his first-ever detection in human breast milk of a carcinogen known to cause cancer in laboratory animals.

His year-long study, funded by the Canadian Breast Cancer Foundation, showed low levels of environmental chemicals called aromatic amines in the breast milk of 31 lactating women from the Guelph area. The results were published last month in the American Chemical Society's journal, *Chemical Research in Toxicology*.

Josephy notes, however, that his results are no reason for breast-feeding mothers to worry about harming their children. The benefits of breast-feeding far outweigh any unquantified effects of trace con-

taminants, he says.

Josephy hopes to receive more funding to pursue similar studies, this time looking in breast milk for a substance linked to cancer in lab rats that results as the body breaks down lidocaine, a dental anesthetic and a headache remedy. He also hopes to investigate levels of known environmental contaminants in various foods, particularly vegetables.

The aromatic amines he studied last year are found in industrial products and released into the environment. Earlier studies had linked one of the chemicals, o-toluidine, to mammary cancer in rats. Josephy says that despite a pile of research on the thousands of trace chemicals in mothers' milk, "no one had ever looked for these compounds."

Working with graduate student Lillian DeBruin and University of Waterloo chemistry professor Janusz Pawliszyn, Josephy found concentrations of aromatic amines

in breast milk ranging from 0.01 to 7.44 parts per billion.

He says detecting the substance in such minute concentrations reflects the sophistication of today's analytical equipment and techniques, but leaves unanswered questions about what those amounts imply or what to do about them.

Some of these compounds probably come from foods, he says. Although the particular substances he examined are not found in cigarette smoke and although research studies on the links between smoking and breast cancer are contradictory — all the scientific evidence "points pretty clearly at aromatic amines as being mutagenic carcinogens in cigarette smoke," he says.

He conducted his work on a gas chromatography mass spectrometer, the same kind of device used by Olympic officials to test for performance-enhancing drugs.

BY ANDREW VOWLES

AN OUNCE OF PREVENTION . . .

*The more cars are stolen,
the more insurance premiums increase*

John stops at the corner store to pick up a couple of things. Because it's winter, he leaves his car running so that it will still be warm when he gets back in. But when he steps outside again, his car is no longer there; it has disappeared, vanished . . . it's been stolen!

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Incredible, but true! Every 10 minutes a vehicle is stolen, and it only takes a professional an average of 30 seconds to take off with your vehicle, without the key. Just imagine how fast it could disappear with the key in the ignition and the motor on.

Here then are the main precautions to take in order to avoid having your car or its contents stolen:

- Always close your windows, lock your doors and keep your keys and driver's licence with you.
- Never leave anything of value or packages in view inside your vehicle.
- Always choose a well-lighted parking space in a busy area.
- To avoid having your vehicle towed, turn the front wheels into the curb as far as you can and put on the hand brake.



- In a public parking lot, leave only your car key with the attendant.
- Have an anti-theft device installed to make it harder for thieves to steal your vehicle.
- Have the windows and main parts of your vehicle engraved to make resale more difficult.

Auto theft is expensive for everyone, because of course, the more cars are stolen, the more insurance premiums increase. For more information: 1-800-268-8955 or in Quebec 1-800-361-3821 www.melochemonnex.com

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Campus Digs Out from Winter Snowstorm

Grounds staff kick into overdrive to clear the equivalent of a small city

IF JANUARY'S record snowfall has you dismayed at the thought of shovelling out the driveway all winter, imagine how you'd feel if you were responsible for clearing the entire University. Thirty-nine acres of parking, 56 kilometres of walkways, 32 kilometres of roads — it's like clearing a small city, says Grounds staff member Dave Hellewell, a survivor of 26 winters at U of G.

And when we receive a heavy snowfall like the 40 centimetres that come down in a matter of hours during the first weekend in January, Grounds staff must kick into overdrive to get the snow and ice cleared across campus. That requires the co-operation and patience of everyone at the University, Hellewell says.

"It's always a timing thing with snow," he says. "We have to start clearing snow and ice throughout the night to make the campus safe for the morning arrival of staff and students."

Adds Malcolm Gilchrist, a 25-year Grounds employee: "Under normal circumstances, we'd be fine, but when we get dumped on like this, it simply takes more time to clear the entire campus."

After the first blast hit, the 16 members of Grounds plus several student shovellers navigated the virtually impassable campus roads before four a.m. on Sunday to begin the arduous task of clearing the snow. In the days since, the entire Grounds crew has been working up to 14-hour shifts to clear fire routes, primary walkways, stairs and park-



Grounds staff Malcolm Gilchrist, left, and Doug Dennis are set to plow their way through another winter.

PHOTO BY MARTIN SCHWALBE

ing lots, says Grounds manager John Reinhart. Eight equipment operators have been making full use of all snow removal equipment since the first weekend snowfall.

Grounds staff follow a snow removal procedure similar to that of any city, says Reinhart. And like any city, snow removal after a major snowfall can take eight to 10 days. To illustrate why, he notes that if the average-sized parking lot takes an hour to clear using a four-wheel drive pickup truck when we receive

five to 10 cm of snow, that same lot will take five hours to clear using a front-end loader and a plow if more than 30 cm has fallen.

"People don't realize this much snow has to be removed in levels," says Reinhart. "It's hard on equipment and you're going to get stuck if you try moving that much snow in one sweep."

Although the process seems slow and arduous, the University is faring well in comparison with other communities, he says.

By now, everyone has noticed the "Closed for the Winter" signs posted on secondary walkways around campus. This enables Grounds staff to make more efficient use of their hand shovelling time and make primary walkways and stairs safer.

"By keeping only primary access areas opened and closing secondary routes, we're not shovelling needlessly," he says.

Reinhart notes that the University's two "trackless" snow-clearing machines with their large sweeper

attachments deserve a lot of credit for the speed at which campus walkways can be cleared in the mornings. He says the benefit of having these machines is their ability to eliminate residual snow that would otherwise form into ice on walkways.

Of course, many areas on campus, including steps and stairs, can't be cleared by machine. South Residences alone has 72 fire escapes that must be cleared by hand.

The co-operation of the University community goes a long way to help snow-removal staff do their job, says Reinhart. Try to avoid parking in lots that haven't been plowed yet, but if you must, park in a corner near the entrance of the lot rather than in the centre, and park close to any other cars that are already there. Don't plow through the snow just to get to your favourite spot.

Cars left overnight in lots not designated for overnight parking are a big headache for snow clearers, as are people who park illegally, especially along South Ring Road, Reinhart says.

He urges members of the University community to keep an eye out for plowing machines and shovellers and to stay out of their way or to at least acknowledge their presence so they know you see them. He also asks that people not turn campus side-walk ramps into slides.

And don't forget what mom always told you about wearing sensible footwear during the winter. Even a small patch of ice can be hazardous to your health.

BY VICKI SHEARER

Radio Best Source of Information in Bad Weather

UOF G RARELY CLOSES down in bad weather, but when it does, your best source of information is the radio. Stations in Guelph, Kitchener-Waterloo and Toronto are immediately notified if the president decides to shut U of G because of bad weather or an emergency. If you're at home trying to call the campus switchboard, you'll probably find it jammed with other people trying to get through.

The president or a designate decides whether to close the University or restrict activities on the basis of a combination of factors, such as the amount of snow, the forecast and road conditions. The decision is made on the advice of the executive director of Facilities and Hospitality Services, who may consult with other Guelph schools, local police and transportation services and area weather information services. Once

the president decides to close the University, the executive director of Facilities and Hospitality Services advises Security Services and authorizes Communications and Public Affairs (CPA) to begin closing procedures through the media by 7 a.m.

With the exception of essential services, a campus closing is firm and not left to the discretion of individuals or departments unless special arrangements are made with the

president and Security Services. Essential services are Student Housing Services, Facilities and Hospitality Services, Telecommunications Services/switchboard, Computing and Communications Services, Security Services, Student Health Services, the Campus Child-Care and Learning Centre, Research Station Operations, Animal-Care Services, the Veterinary Teaching Hospital and on-campus animal units.

If hazardous conditions become imminent during the working day, the executive director of Facilities and Hospitality Services provides the president with information about weather reports, road conditions and local bus service. If a decision is made to close the University, CPA informs local radio stations and key units across campus, which in turn, inform the rest of the University community.

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IT'S ABOUT TIME

"We come to think of waiting as being cheated out of time because it conflicts with our champion values of speed and efficiency."

BY KERRY DALY

PERHAPS AT NO OTHER TIME of the year are we so acutely aware of the passage of time as at the beginning of a new year. We wake up Jan. 1 astonished to realize that yet another year has gone by, but taking comfort in the knowledge that a whole new year lies ahead. Then the panic sets in. What's to stop this year from slipping by as quickly as the last?

In his book *The Time Machine*, H.G. Wells talks about the peculiar sensation of travelling through time: *As I put on pace, night followed day like the flapping of a black wing. The dim suggestion of the laboratory seemed presently to fall away from me, and I saw the sun hopping swiftly across the sky, leaping it every minute, and every minute marking a day.*

As in all good science fiction, Wells prods a nerve of contemporary sensitivity. Although the length of a minute, an hour or a day has not changed, it would appear that our experience of those minutes, hours and days has accelerated dramatically. Like the time traveller, we seem to be putting on pace.

When we think back to the days of the past year, they do seem to have passed like the flapping of a black wing. Where once families worked and lived together from sun-up to sun-down, we now vie for flex time, patch together a daily schedule of caregiving arrangements for children and aging parents and, on the way home, grab some fast food that will enable us to spend some precious time together before heading off for lessons, attending to household duties or getting the homework done. Somewhere in there, the sun does set, and we find ourselves at the end of the day with the tasks accomplished and only enough energy to turn on the tube for an hour or so before dragging ourselves bleary-eyed to bed.

We live in a hurried culture where the politics of time has taken its place next to the politics of geographical boundaries. In the book *Time Wars*, Jeremy Rifkin suggests that whereas war has traditionally focused on maintaining boundaries that protect space, we are now in an era where, in our everyday life, we must find ways to preserve and protect boundaries around time. Adults are at war on a daily basis with the demands of their work and community. Parents devote an enormous amount of energy fighting on the front line in an effort to achieve a balance between their own needs for time and time for their children. Women and men continue to do battle on their entitlements to free time and their obligations to provide care and support to their families.

Families live in a world of accelerated time demands, and as a result, it's becoming increasingly difficult to preserve and protect the boundaries of time. In response to forces such as information technology and the growing importance of work, families are caught in an "ever-tightening spiral of development." This spiral has condensed evolutionary changes taking millions of years to a time scale that has a series of technological revolutions occurring in a lifetime. Personal computers have changed the currency of time from tangible hours and minutes to nanoseconds.

Because of the escalating pace of life, families find themselves chronically impoverished for time. Family life is increasingly dominated by an angst about fitting it all in, and families frequently lament the shortage of time for being together. Dual-earner families spend much of their time synchronizing schedules and dealing with the overall speed-up of work and



family life. Unlike Longfellow's poetic description in the 1800s, relationships are no longer silent ships passing slowly in the night, but rather are screaming trains that go careening by each other in broad daylight.

One of the symptoms of our fast-paced world is that we have little tolerance for things or people that are slow or for experiences that take a long time. Look what happens when you go to Zehrs on Saturday to get your groceries. You find the shortest checkout line. As you're nearing the counter and someone ahead of you needs a price check, what do you do? You start scanning the other lines. "Blast, the guy in lane 8 was my second choice, and he's already going through. Should I switch?" If you're anything like me, you can work yourself into a full-fledged state of agitation. We come to think of waiting as being cheated out of time because it conflicts with our champion values of speed and efficiency.

Technology has played a big role in accelerating this intolerance for waiting. Microwave ovens made conventional ovens seem slow. VCRs made watching a TV movie with commercials feel like torture. Computer users cheered the arrival of the 486 chip only to grow impatient waiting for the Pentium to arrive. Adding to this desire for instant gratification and response is the growing use of e-mail and cellular phones.

It becomes increasingly difficult to keep pace with a culture that is going so fast. There is a pervasive sense that our lives are spinning out of control. We are often left with the feeling that we can only pick up little scraps of time as if they were crumbs from the table for our own personal use as individuals and families.

The traditional way of dealing with time is to borrow a time-management model from the world of business. This

model is based on the principle of efficiency — do more in a shorter space of time. We are seduced into believing we can save time by using express lines, drive-through tellers, microwaves, e-mail and instant food. Accordingly, we try to pack more activity into the time we've saved. The irony is, of course, that when we pack more tasks into that extra time, we need another time-saving device just to cope. Time management may allow us to feel a little more organized with our time in the short run, but the net result is that we do more and ultimately feel more controlled by time.

Another way to deal with time is to think of it like a government deficit. For years, we spent our money as a province or nation in a reckless way. We incurred many expenses along the way and rationalized each one as necessary and important until we found ourselves with an unmanageable debt. So it is with time. We incur little expenses along the way, taking on additional jobs and responsibilities, until one day, we wake up and realize we are overspending the time we have. We feel like we're in a deficit position with our time and that we've lost the balance in our lives.

As with the deficit, we realize that to change that imbalance, we need to make difficult choices. Time is nothing more than a proxy for values in our lives. If we want to use our time wisely, we need to make choices about what we can and cannot do. When we make choices to strip certain activities out of our lives, we also need to make choices about what to put in their place. When we make time for family, we also need to ask ourselves what we're looking for when we do come together as family. Here we encounter the discrepancy between the real and the ideal. Our meanings of family time are coloured by the nostalgia of the past, where families would come together around the hearth in peaceful harmony. Our cultural context today is a hurried one, and we need to ask ourselves what is realistic and manageable in order to have family time. Insisting on certain family meals, having a movie night or even appreciating the time in the car with one another on the way to a lesson are simple ways to preserve family time. Whatever form it takes, family time requires that we be attentive to each other and allow for unstructured spontaneity.

If we want to win the war against time, we need to keep time on the surface of our consciousness. If we want to control time, we need to control the choices we make. For some, these are small manageable choices that we can introduce into our everyday lives. Like giving yourself a few extra minutes to get where you're going instead of speeding in a panic to get there on time. For others, the choices must be larger ones that involve a more radical restructuring of their lives. This can mean a decision to move from full time to part time or to reduce our commitments and involvements in several domains of our lives. Radical restructuring quite often involves a trade-off between time and money. We must ask ourselves which is more important.

We will never win the war with time, but we can certainly find a secure position when we make choices that allow us to control time rather than let it control us. We are all time travellers. Although our days will continue to pass like the flapping of the wing, the challenge before us is to slow down and discover new ways to enjoy the flight.

Prof. Kerry Daly is a faculty member in the Department of Family Relations and Applied Nutrition, co-director of the Centre for Families, Work and Well-Being, and author of the book *Families and Time: Keeping Pace in a Hurried Culture*.

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A PERFECT FIT

Health and Performance Centre co-ordinator practises what she preaches

By ANDREW VOWLES

WHEN CYNDY McLEAN left her job as a fitness consultant to do graduate work in human biology in 1994, she chose Guelph because it was the perfect fit. Little did she know it would also turn into the perfect job.

Last fall, McLean helped cut the ribbon at the official opening of U of G's Health and Performance Centre in the Powell Building in her position as co-ordinator of the centre. She oversees a range of academic and clinical activities in the centre, which brings together researchers from across campus, mostly in the fields of human biology and nutritional sciences, and a multidisciplinary team of contracted health practitioners serving the University and the external community.

McLean hadn't expected to be heading up such a program when she enrolled in graduate studies at Guelph after working for two years as a fitness consultant for a Toronto fitness store chain. Armed with an undergraduate degree in physical education and recreation from the University of New Brunswick, she hoped to learn more about nutrition in Guelph's human biology program. "What appealed to me was that it was a combined program where nutrition and exercise physiology were integrated." She completed her thesis just two weeks after being hired as co-ordinator for the then-nascent centre.

As a graduate student, she did groundbreaking research on caffeine metabolism in women. Her supervisor, Prof. Terry Graham, Human Biology and Nutritional Sciences (HBNS), says her detailed and exhaustive research overturned notions about the processing of caffeine by menstruating women. "She was able to demonstrate that both exercise and dehydration had absolutely no impact on metabolism, which was surprising," he says. "We thought it would alter metabolism. Secondly, she found that normally menstruating women had very similar metabolic capacities for caffeine as do men."

Graham says the results mean that researchers who used to study only the caffeine metabolism of men may now recruit women as well. Based on their work, Graham and McLean co-authored a chapter in a new textbook on gender differences in metabolism.

It was Graham, in fact, who recommended McLean to her current position. Recalling earlier conversations with HBNS chair Prof. Jack Barclay about their tentative plans for the centre, Graham says: "We needed a champion with the time to devote to administering the application and negotiating it through



Health and Performance Centre co-ordinator Cyndy McLean oversees the workout of snowmobile racer Ric Wilson.

the various committees."

That was in 1996. What began as a plan for a fitness testing centre quickly mushroomed into a complex undertaking to offer various clinical services as well as research and teaching facilities in health and fitness. Co-ordinating planning for the facility also became a juggling act in bringing together University administrators and the partners in the proposed centre, including not just HBNS faculty and staff but also Student Health Services and the Department of Athletics. "What we were trying to do was something unique," McLean says of the centre's mix of academic and business.

Besides running the centre, McLean keeps her hand in fitness consulting as personal trainer to Belfountain's Ric Wilson, ranked number one in the Canadian Snow-Cross Racing Association and number 10 worldwide.

By the time Wilson contacted the University in fall 1997, he had long excelled at the sport — which McLean likens to "motocross racing with a snowmobile" — but he needed training to help maintain his ranking.

Wrestling a 200-kilogram snowmobile around a punishing obstacle course at nearly 100 kilometres an hour is physically and mentally demanding for younger riders, let alone for the reigning champion, who was 35 when he approached U of G.

"Most people competing at his level are in their early twenties," says McLean. "He's a grandpa compared with many of these athletes. If he weren't at his current fitness level, he couldn't compete."

She overhauled Wilson's diet and worked up an exercise regimen. Regular training has increased his strength and flexibility and has improved his recovery time dramatically. "He races basically every weekend from November to April," says McLean of a racing circuit that sees riders compete around Ontario, Quebec and the northeastern United States. "Before, he would race and then be almost paralysed for the rest of the week, just hold on for dear life and hope things went well. We've progressed to the point where he's able to actually think about what he's doing and develop strategies during his races."

"It's a very aggressive sport — very high intensity," says McLean, whose own strength-training program keeps her in shape for occasional half-marathons and 10K runs. "I think a lot of my training is for mental well-being. It brings me balance. It's more a lifestyle thing. When I'm talking to people about lifestyle issues, I practise what I preach."

Make New Year's Goals, Not Resolutions

RESOLVED TO GET into shape this year? Forget resolutions and think goals, say Cyndy McLean, co-ordinator of the Health and Performance Centre, and Heidi Neff, the centre's dietitian and sports nutritionist. "The whole idea of resolutions sets people up for failure," says McLean. "They're not specific enough, and typically they tend to be short-term. We endorse a more long-term approach to health."

Here are their 10 steps toward a fitness and nutrition program for 1999:

1. Change resolutions into goals. Instead of saying: "I'm going to get fit," say: "I will begin a walking program."
2. Set specific and measurable goals: "I am going to walk three times a week for 20 minutes."
3. Be optimistic and realistic: "I will lose 10 per cent of my initial body weight in one year, not 15 pounds in one month."
4. Set both long- and short-term goals: "I am going to begin by walking once a week for 10 minutes and add one minute per session for the first month. Within three months, I will reach my goal of three sessions per week."
5. Identify obstacles and solutions. If your obstacle is lack of time, you might, for example, prepare meals in advance.
6. Develop an action plan, including the specific steps you need to take to reach your goal.
7. Seek guidance. Think about meeting with a dietitian and fitness professional.
8. Seek support. Why not exercise with a buddy?
9. Identify indicators of success, such as completing 80 per cent of your scheduled workouts.
10. Re-evaluate and update goals.

McLean and Neff will present a session on "Realizing Your Resolutions: Getting Fit and Eating Right for 1999 and Beyond!" Jan. 19 at 7 p.m. at the Health and Performance Centre. To registrar, call 767-5011.

Fit to Be Tried

FORGET TIMOTHY FINDLEY and Margaret Atwood. During my teenage body-building days, my required reading included Arnold Schwarzenegger. I well remember going out to buy a full set of weights, a bench press and a copy of the Austrian Mountain's *Pumping Iron*. Promising myself that one day I, too, would look like that, I'd admire Arnie's sculpted pecs and abs in the book's glossy photos, then peer into the mirror for any telltale shadows.

I thought of him — and of that long-ago promise — when I paid a visit to the Health and Performance Centre to check out the facilities.

These days, I look less like Arnie and more like his big-screen *Twins* foil, Danny DeVito. I'm still 5-foot-8, but a little more than that teenaged 125 pounds, according to a weigh-in before my plunge in the centre's dunk tank.

Standing on a conventional set of scales, I relayed the information to centre co-ordinator Cyndy McLean (Editor's note: Are we to include that 75-kilogram figure or not?). "Perfect," said McLean, who is nothing if not irrepressible. I decided not to argue with her.

Formally, the device is called a hydrostatic weighing tank. Based on

the Archimedes principle well known to front-row aficionados of the killer whales at Marineland, the dunk tank determines your body composition. It's a little more involved than hopping on to the scales, although hardly intimidating for us seasoned athletes. You descend a ladder into a miniature pool (heated, for the faint-hearted among you), assume the lotus position on a submerged swing, then lean forward to immerse yourself while exhaling to the point of near-asphyxiation. Buddha and John the Baptist, all in one.

Even McLean appeared a little

deflated by the monitor's readout. Apparently, nearly one-quarter of me is nothing but fat (which is not necessarily a bad thing during a Canadian winter). Add that to the roughly 90 per cent of me that consists of water and is it any wonder that the dietitian's body mass index chart showed me teetering between normal and overweight?

Elsewhere, the news was similarly uninspired. According to the results of a mini-workout under the physiotherapist's incredulous eye, there's something wrong with the entire right side of my body. And the pedorthist said my running shoes

are good for nothing but a dog's chew toy.

We all have a strong suit. Mine was the therapeutic massage station. There, I excelled at lying flat on my back and relaxing.

Finally, it was time for the treadmill heart test. First, I watched as McLean put the machine through its paces. I sneaked a glance at the dial setting: Punishing Uphill Run. An onlooker eyed me and helpfully asked: "Is there a setting for downhill?"

I've given up on becoming the next Arnie. But like him, I've got a fallback — I may yet become a writer.

By ANDREW VOWLES

Veterinary Technology Graduates Make the Grade

Ridgetown grads exceed North American average on board exam

IT'S OFFICIAL — some of the best and most-sought-after veterinary technologists in North America are from Ridgetown College.

In the most recent board exams required to become registered veterinary technicians, Ridgetown graduates earned marks almost 10 per cent higher than the North American average. More than 2,000 students from schools across Canada (31 from Ridgetown) and the United States wrote the standardized exam, which all veterinary technology program graduates require to become registered veterinary technicians.

The Ridgetown graduates exceeded the Canadian average in all

categories of the exam — administered in Ontario by the Ontario Association of Veterinary Technicians — covering pharmacy and pharmacology, surgical preparation and assisting, laboratory procedures, animal nursing, radiology and ultrasound, anesthesia and office and hospital procedures.

"We have a very high-quality program, and that's reflected in our students' results," says Wayne Cole, co-ordinator of the veterinary technology diploma program. "It's encouraging to know that our students are so well prepared to enter this rewarding career."

The two-year program at Ridge-

town, which is accredited by the Canadian Veterinary Medical Association, is doubling its student numbers. Because of the high demand for the program — more than 700 applications a year for only 40 positions — the college has developed a summer semester program, which will allow about 40 students to pursue some courses by home study through the fall and winter. The students will then attend the college for three consecutive summer semesters for laboratory work and to attend lectures.

The summer program students will receive the same qualification as regular students, says Cole, but they

will also be able to work through the fall and winter semesters. This new format should attract mature students who are already employed in the veterinary technology field, as well as students living at a distance, he says.

Students who graduate from the program have a variety of opportunities open to them, including careers as veterinary assistants, medical research technicians, animal-care workers, and pharmaceutical or technical sales representatives.

BY CLAIRE MOXON
OFFICE OF RESEARCH

Winegard Visitor in CPES

RENOWNED mathematician Rajendra Bhatia, a longtime professor at the Indian Statistical Institute in New Delhi, will be Winegard visiting professor in the College of Physical and Engineering Science this month. He will present five independent lectures under the theme "Noncommutative Analysis" Jan. 27 and 28 and Feb. 2 to 4 at 4 p.m. in Room 121 of the MacNaughton Building.

Bhatia's field is matrix analysis, with applications in numerical analysis, computational linear algebra, statistics and mathematical physics. Author of numerous books and papers, including the recent book *Matrix Analysis*, he is editor of several scientific journals and a book series. He is also a frequent speaker at international conferences.

Bhatia collaborates with researchers worldwide and is particularly well-known in Canada. He was a visiting professor at U of G in 1983 and 1986, and has visited the University of Toronto and the Fields Institute in Toronto.

Prof. John Holbrook, Mathematics and Statistics, says he nominated Bhatia for a Winegard award because of the quality of his work and its relevance to researchers in his department and across the college.

The Winegard visiting professorships are named for former U of G president Bill Winegard and supported by the President's Council Fund, which covers expenses and honoraria for five visiting lecturers each year. The award rotates annually among Guelph's colleges.

For more information, call Holbrook at Ext. 3552.

Commerce Students Test Business Acumen

Team aims to increase recognition of Guelph business programs at undergraduate games

FORTY-SIX U OF G Commerce Society students will test their business acumen against the best in Canada this week.

The Undergraduate Business Games Jan. 15 to 17 at the University of Western Ontario are billed as Canada's foremost intercollegiate business school activity. Teams of students from 20 universities are pitted against each other in three competition areas, all with business themes — academic, athletic and social. This is the second year Guelph has entered the competition, which has run annually since 1992.

Team captain Jason Holley, a third-year economics student, sees the games as one part networking

opportunity, one part opportunity to "trump" some more well-known business schools and display a little Guelph pride.

"The games are a huge step," he says. "A lot of business recruiters go straight to Western and York to search for graduates because of their MBA programs. We're trying to change that. I hope our participation will lead to increased recognition of U of G's business programs, put us a little bit more on the map. It's a chance to show people how focused we are academically at Guelph, to show that we are producing future business leaders. And at the same time, we'll get to see what the competition is going to be like after graduation."

Holley, who aims to become a certified financial planner after graduation, believes his team shares many of the characteristics that drew him to Guelph in the first place. In a word, diversity.

"Other universities just send their business school to represent them at the games. We don't have a general business school; instead we have specialized programs in real estate, marketing, agricultural economics and business, economics, and hotel and food administration. We draw from a wide range of disciplines, but aren't so pigeonholed as to what courses we take. I know other universities where the business students are limited to

business courses, whereas in economics at Guelph, I can take courses in psychology, sociology or other areas of interest."

Initiative has not been in short supply either, with the Commerce Society securing several local sponsors to assist its running and the team's expenses to attend the Undergraduate Business Games.

Interim dean Prof. Michael Nightingale applauds their efforts. "I am delighted to see the commerce students playing their part in increasing the profile of the management programs at Guelph through their participation in these games," he says.

BY ALEXANDER WOOLEY

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Collaborative Study Aims to Promote Social Change

Local park is focus of community and University effort to better understand social role of cultural memorializing

EFFORTS TO PROMOTE social change in Guelph have a unique place to take root — in a local park.

A collaborative project between community members and researchers in U of G's Centre for Cultural Studies aims to discover how Marianne's Park — a memorial to a worker at Guelph-Wellington Women in Crisis who was murdered by her partner — can be used as an effective tool to increase awareness of violence against women and to better understand the social role of cultural memorializing.

Marianne's Park, located on Gordon Street along the Speed River, is dedicated to the memory of Marianne Goulden. A resident, volunteer and eventual staff member at Women in Crisis (WIC), she was killed by her common-law husband in 1992.

The study of the park's meaning in the community involves WIC staff and volunteers and the cultural memory group at the Centre for Cultural Studies — centre director Prof. Christine Bold and Prof. Ric Knowles, Literatures and Performance Studies in English; Sabina Chatterjee, a U of G women's studies graduate and WIC staff member; Prof. Belinda Leach, Sociology and Anthropology; and Jodie McConnell, acting director of the Human Rights and Equity Office.

"If you think about it, most public memorials are war memorials," says Leach, "but there are now different kinds of sites of cultural memory, like the AIDS quilt or the Holocaust museums. We're interested in that kind of memorializing and what it means for specific groups to engage in this kind of memory making. We're interested

in the relationship between memory and social change."

One of the group's main activities will be to develop an archive for academic and community purposes. Materials about how the park was created, memorializing in general and violence against women will be made available to groups and individuals. The archive will be available in different forms and in various locations.

Project participants also hope to find ways to use the park as an activist tool for feminist work in the community. For example, the park is now the starting point for the annual "Take Back the Night" march and the former site of the Dec. 6 memorial service for the 14 female engineering students murdered at Montreal's Ecole Polytechnique in 1989.

In its commitment to social responsibility, the cultural memory group is looking at theories of memorializing, says Bold. Members are using their varied disciplinary backgrounds to analyse and document cultural memory and related issues.

The key to the project is collaboration, she says. Although various details have yet to be worked out — such as how to develop a research process that is both academic and community-based — the group is determined to bridge the gap.

"We are trying to get rid of the distinction between community and academics," says Bold. "We want to make academic work useful for the community and to take community thinking and experience seriously as academic work."

The Social Sciences and Humanities Research Council of Canada is supporting this study through a strategic partnership development grant.

BY TAMMY RESENDES
OFFICE OF RESEARCH

On the Copyright Trail

Job will become even more challenging as Office of Open Learning adds courses

THE WORD "DETECTIVE" isn't listed in Phyllis Carnochan's job description, but it should be.

As copyright assistant for the Office of Open Learning, Carnochan is responsible for hunting down copyright clearances on everything from photographs and book chapters to 20-year-old letters to the editor.

Guelph offers more than 90 open learning courses, and faculty use dozens of books, pictures, slides, videos and other materials for each course. Every single item must receive copyright clearance before it can be reproduced, right down to the smallest picture in the thinnest book.

Stacks and stacks of books are piled on top of and around Carnochan's desk in Johnston Hall. Each book is marked with anywhere from one to a couple of dozen "post-it" tabs, indicating an item awaiting copyright clearance.

Getting that clearance is not an easy task. Tracking down copyright ownership involves many phone calls and letters and faxes to publishers, authors and private individuals.

"It is a real challenge, and you have to be a detective at times," she says. "Publishers are changing things all the time."

It's Carnochan's job to make sure all the rules are followed properly, and playing by the rules takes time. It's not unusual for her to wait three weeks to a year to get the copyright clearance on a single item. Because most faculty like to use many different books and materials to create open learning courses, Carnochan is never lacking for work. And like any good detective, she has wonderful stories to tell of her quests.

Just recently, she was looking for permission to include a photograph of an Indian wampum belt published in a book. After contacting both the author and publisher, she was told to check with the New York City museum where the belt was housed. The museum said it owned the photograph and would be pleased to send her a copy, but first



Phyllis Carnochan tracks down copyright ownership for more than 90 open learning courses. PHOTO BY MARTIN SCHWALBE

she would have to get approval from the chief of the Onondaga Nation. Carnochan sent him a letter and is still waiting for a reply. The photograph is to be included in a CD-ROM made up of more than 700 photographs, all of them needing copyright clearance.

Then there was the professor who wanted his course to include a copy of a letter to the editor that appeared in the *Globe and Mail* in 1977.

Carnochan sent a letter to every listing for the author's name in the Toronto telephone directory before finally tracking down his son. The author had died, but his son remembered the letter. "He said he would talk to his mom about it," says Carnochan, "and later they wrote back and gave us permission to use

the letter."

Carnochan, who has worked at Guelph for 18 years, three of them in the Office of Open Learning, expects her job to become even more challenging as 30 new courses are added this spring and as courses evolve from including books, pictures and videos to more CD-ROMs and Web pages. Her detective skills will be needed more than ever because copyright clearances for CD-ROMs and Web pages often involve uncharted waters.

And that's just fine with Carnochan. "When I come to a dead end, that's what I really like, figuring out how to solve it," she says. "Those are the cases I really want to work on — I like the challenge."

BY LORI BONA HUNT

Taking a Shot at Sheep Disease

OVC researchers believe biobullet may be best way to arm Rocky Mountain bighorn sheep against devastating pneumonia

ASHOT FROM A U of G biobullet could be the ammunition Rocky Mountain bighorn sheep need in the battle against a devastating disease. Recent research by Profs. Patricia Shewen and Ian Barker and graduate student Heather McNeil of the Department of Pathobiology has shown that biobullets, which dissolve in the body and contain a vaccine, may be the least-stressful way to immunize the wild sheep against pasteurized pneumonia.

Working with the Colorado Division of Wildlife, the researchers developed a vaccine modelled after immunizations for shipping fever in cattle and pneumonia in domestic

sheep. They also tested three ways to give the vaccine to populations of wild bighorn sheep — biobullets, traditional injection and orally. The laboratory work was completed at Guelph, and the Colorado Division of Wildlife, which is funding the research, administered the vaccine to the animals.

North America is home to about 100,000 bighorn sheep, 7,000 of them in Colorado. Although the animals aren't considered rare or under threat of extinction, pasteurized pneumonia epidemics have been known to decimate herds, says Mike Miller of the Colorado Division of Wildlife. He notes that up to 10 per cent of Colorado's bighorns are af-

fectured by pasteurized pneumonia each year, and that anywhere from 10 to 70 per cent of a herd population can be lost through one outbreak.

The disease is spread through contact between populations and can also be transmitted between domestic sheep and wild bighorn sheep grazing the same areas, says Miller. Once a herd has experienced an epidemic, it's difficult for the population to regain its strength, he says.

When the pneumonia vaccine is encapsulated in a biobullet and shot from a gun at a distance, it is as effective as traditional injection, says McNeil. The benefit of a biobullet is the lack of stress on the animal when

it is applied. "It feels just like an insect bite," she says.

This contrasts sharply with the traditional method of injection, which requires the wild animals to be penned, handled and given a needle.

Oral application involves feeding the vaccine through a capsule placed in food offered through feeding stations in mountains. The drawback of this is that the vaccine is not as effective when ingested by the sheep.

Although biobullets are not a new technology, using them to vaccinate bighorn sheep is a new application of the delivery method — a fact that has broad appeal for veterinarians and researchers interested in wildlife management, says Shewen. "If we

find a method of delivery that is effective, easy to use and non-stressful, it could be applied to other vaccines."

The Colorado Division of Wildlife will continue to fund this project for another three years to move into genetically engineered vaccines. With the addition of Prof. Reggie Lo, Microbiology, the research will involve the development of a live vaccine that is intended to colonize in the upper respiratory tract of the sheep. It's hoped that the vaccine organism can be passed from sheep to sheep naturally, eventually eliminating the need for traditional vaccination methods.

BY GAYLE ANDERSON

What a doll!

Memories of Barbie inspire fine art student's thesis

THERE'S SOMETHING about Barbie. That's what graduate student Sara Kelly learned while working on her honour's thesis in fine art. Prompted by her own childhood fascination with the popular doll, she set out to photograph and record women of all ages and young girls playing with Barbies.

Kelly would put several Barbies in front of her photography subjects and ask them to dress and play with the dolls.

"As soon as they started playing with them — dressing them, arranging their hair — something would happen," she says. Even the most reluctant of subjects would open up and start to talk about Barbie and their childhood — regardless of whether they loved or loathed the dolls. "Things would just come pouring out," she says.

Kelly photographed the women and girls and recorded their memories on tape. Some of the photo-

graphs and transcripts will be featured as an exhibit at the Zavitz Gallery this month. The show is called "Think Pink."

"I took a documentary-style approach," says Kelly. "I'm not saying that Barbie is good or bad. I'm putting the pictures on the walls and letting people say what they have to say, and viewers can take from that what they will."

Women's memories of playing with Barbie ranged from envy of her blond hair and fascination with her arched feet and high-heeled shoes to using the dolls for sex education. "One woman recalled how her mom made her cut her hair, so she went and cut off her Barbie's hair," says Kelly. Other women remembered how they preferred playing with Skipper, a teenage version of Barbie, because they related more to that doll's body size and type.

"Think Pink" runs Jan. 18 to 22 at the Zavitz Gallery. Hours are 8:30 a.m. to 4:45 p.m. Monday to Friday.



In a self-portrait, Sara Kelly displays the doll that is the focus of her fine art thesis.

Music Ensembles Welcome Members

THE SCHOOL of Fine Art and Music's winter ensembles welcome new members from faculty, staff, students, alumni and members of the surrounding community.

The U of G Orchestra, conducted by Henry Janzen, rehearses Thursdays at 7 p.m. in Room 203 of the MacKinnon Building. The Concert Winds, conducted by John Goddard, meet Wednesdays at 7 p.m. in MacKinnon 203. The U of G

Choir, led by Marta McCarthy, rehearses Wednesdays at 7 p.m. in MacKinnon 107. The Women's Choir, conducted by Dominic Gregorio, meets Mondays at 7 p.m. in MacKinnon 203. The Jazz Ensemble, led by Prof. Howard Spring, rehearses Thursdays at 7 p.m.

Participation in the ensembles requires the approval of the conductor and may require an audition. For more information, call the School of Fine Art and Music at Ext. 3127.

Centre Receives Support

Continued from page 1

fund-raising campaign later this year, and officials at Guelph and Ridgetown have begun discussions to co-ordinate the two campaigns, says Rudy Putns, executive director for campaign programs in Development and Public Affairs. "The goal is to create a single campaign with U of G as the campaign umbrella," he says.

Currently, U of G is refining its inventory of campaign needs and preparing for a feasibility study. It has also begun recruiting senior development managers to head up fund-raising efforts in individual colleges. Efforts are also under way to find community leaders to serve as campaign volunteers.

Ridgetown joined U of G in 1997 as part of the University's enhanced partnership with the Ontario Ministry of Agriculture, Food and Rural Affairs. The college has more than doubled its enrolment over the last 10 years, has expanded its continuing education and certificate training, and manages an

extensive research program with more than 80 partners, including Pioneer Hi-Bred.

"Ridgetown College continues to make tremendous contributions to Ontario's agriculture industry and Chatham-Kent's economy," says Pioneer Hi-Bred president Bill Parks. "Our support of the Millennium Project is a natural. We live and work in the same municipality and have benefited greatly over the years from the high-quality research conducted there, the training of graduates who have gone on to become employees with our firms, and the continuing education programs provided to farmers and others in the community."

Parks challenges other agribusinesses across Canada to match his company's contribution. Pioneer Hi-Bred develops, produces and markets a full line of seeds, forage/grain additives and services to crop and livestock farmers and grain processors.

BY LORI BONA HUNT

LETTERS

UNIVERSITY BOASTS SOME OF ONTARIO'S FINEST PUBLIC SPACES

As a graduate of Guelph's bachelor of landscape architecture program, I have always been attracted to our campus landscapes and the pleasure we all derive from our environment.

In my opinion, the University grounds boast some of the finest public spaces in the province. They are maintained with care and dedication by John Reinhart and the Grounds staff.

In addition, we now have the beautiful Conservatory Gardens.

Thanks to the generous efforts of alumni, members of the University community now have a wonderful place in which to observe plants and people. We can truly be proud of these gardens.

Finally, the University is very fortunate to have the Arboretum. I have valued walks through this parkland for many years, enjoying the plant selections, gardens and wildlife. It's a great place to reflect and relax — right here in the city. Many thanks to Prof. Alan Watson

and all Arboretum staff and volunteers for making it such a delightful place to visit.

As a program co-ordinator for Independent Study/OAC ACCESS, I deal with horticulture and landscaping clients around the world. It is gratifying to see that our campus exemplifies horticulture in action.

Stephen Fleischer
Independent Study/
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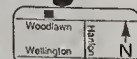
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Radial-arm saw, three years old, like new, 763-3397 evenings.

Sony cassette deck, older high-end model, free ailing Toshiba deck as part of the deal, Ext. 3504 or send e-mail to hdavis@uoguelph.ca.

Olympus binocular microscope, some parts still unwrapped, carrying case, excellent condition, Janis, 766-0634.

Fish illustrations and prints, reasonable prices, Istvan, Ext. 6096, 823-0298 after 6 p.m. or send e-mail to iimre@uoguelph.ca.

Three-bedroom starter home, newly constructed interior, close to park and campus, 763-3577.

Royal portable electric typewriter, Beta 8100, correction key, storage space in cover, excellent condition, 822-0527 between 6 and 9 p.m.

Larson 17½-foot boat, Bowrider, 4.3-litre LX inboard/outboard mercruiser, V6, 205 HP, full convertible top, AM/FM cassette, trailer, excellent touring or ski boat, 824-1773.

Black bra for Honda CRX, Ext. 6581.

Nokia cell phone, Ext. 4344.

Four-bedroom bungalow, 821-1702.

Hockey equipment, men's size small, 821-3865.

FOR RENT

One-bedroom apartment on main floor, fridge and stove, parking, separate entrance, close to downtown, non-smoker, \$500 a month inclusive, available immediately, 827-0723.

On-campus unfurnished one-bedroom apartments for Jan. 1 and Feb. 1, must be affiliated with the University, \$651, \$687 and \$691 a month inclusive, Ext. 6884.

Three-bedroom townhouse on Scottsdale Drive, 1½ baths, close to park, Stone Road Mall and campus, parking, dryer, \$920 a month inclusive, 763-3577 after 5:30 p.m.

One-bedroom apartment, 10-minute walk to campus, parking, laundry, cable, non-smoker, no pets, suitable for graduate student, available Jan. 15, \$475 a month inclusive, 821-3865.

Furnished upscale two-bedroom apartment, fully equipped, available Feb. 1 for short- or long-term accommodation, \$900 a month inclusive, Carol, 823-1857 or 362-1857.

Furnished home in quiet neighbourhood, two bedrooms, office, close to downtown, available for three months, \$875 a month inclusive, 821-6432 or 848-2548 evenings.

Two-bedroom upper duplex to sublet, walking distance to campus and downtown, \$650 a month plus utilities, available mid-January, leave message at 826-9660.

Furnished basement apartment, 15-minute walk to campus, close to bus stop, laundry, cable, suit two non-smoking mature females, \$300 and \$325 a month inclusive, available immediately until April 30, Susan, 767-1224.

AVAILABLE

Drum lessons in large, well-equipped downtown studio, all ages, all genres, Nathan, leave message at 821-0935.

Care for your dog in my home while you travel, Cobi, 836-8086 or send e-mail to cdemmers@uoguelph.ca.

Pet sitting and nursing for small and large animals by veterinarian, small-animal transport to appointments, bondable, Janis, 766-0634.

WANTED

Unemployed PhD, middle-aged, with family ties to Guelph, seeks employment at master's level in any area of academic/research/administration, background in both animal and human research and teaching in medical, health and social sciences, 836-3681 or fax 836-6671.

Tutor for math and English for Grade 9 and 11 students, in my home, Elizabeth, Ext. 2935.

Classifieds is a free service available to staff, faculty, students, alumni and retirees of the University. Submit items by Wednesday at noon to Linda Graham on Level 4 of the University Centre, fax to 824-7962 or send e-mail to lgraham@exec.admin.uoguelph.ca. For more information, call Ext. 6581.

HR Programs Meet Needs for Job-Related Skills Development

Course offerings cover range of topics, including safety and computing technology

HUMAN RESOURCES is once again offering a variety of faculty and staff development opportunities for U of G employees this semester. A booklet outlining the courses has been distributed across campus.

"Although primary responsibility for training and developing employees remains with the heads of departments," says Karen Kovats of Human Resources, "these programs meet broader institutional needs for job-related skills development."

This semester's course offerings cover a wide range of topics, including safety and computing technology. Most programs are designed to be completed in one day in recognition of the operating requirements of individual departments, says Kovats. "But the skills development initiated in one program can be aug-

mented in subsequent courses, and this will help you — or the people who report to you — form job-related knowledge and skills sets."

One example this semester is in the area of leadership. "Leadership and Motivation Skills" is an obvious course selection in this area, says Kovats, but others are "The Stages of Group Development," "Managing Team Projects," "Employment — The Legal Considerations," "Successful Self Management" and "Building Effective Work Teams."

Costs of the programs are supported by the training and development function of HR. Jan. 28 is the first day to sign up, but registrations will continue to be accepted well past that date, Kovats says.

Last January, HR launched a "passport" to faculty and staff development opportunities to be used as

a personal record of attendance at HR's programs. Once an employee completes 10 programs, he or she is eligible to receive a formal certificate of participation.

The first members of the University community to receive a certificate of participation are Susanne Mary Foster of the Department of Chemistry and Biochemistry and Roger Will of the Fire Division. Passports are available through Client Services.

For more information about development opportunities, call Kovats at Ext. 6495 or Margaret Middleton at Ext. 6800 or visit the Web site www.uoguelph.ca/HR/training/.

Comments and suggestions about the course offerings can be submitted on the job-related training needs questionnaire, which is linked directly to Kovats by e-mail.

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ART CENTRE

Opening this month at the Macdonald Stewart Art Centre is the exhibition "Contingency and Continuity: Negotiating New Abstraction," featuring the work of six young Canadian abstract artists. The official opening Jan. 21 features a panel discussion with five of the artists and show co-curators Judith Nasby, director of the art centre, and Ron Shuebrook, former U of G fine art professor and now academic vice-president of the Ontario College of Art and Design. The discussion begins at 7:15 p.m. and will be followed by an opening reception at 8 p.m. The show continues until March 21.

ATHLETICS

U of G's basketball teams host Lakehead Jan. 15 and 16 at 6 p.m. (women's) and 8 p.m. (men's). The Gryphons are also at home to Laurier Jan. 20 at 6 p.m. (women's) and 8 p.m. (men's) and to Brock Jan. 23 at noon (women's) and 2 p.m. (men's).

The Waterloo-Guelph swimming invitational runs Jan. 16 at 9:30 a.m. at Waterloo and 5:30 p.m. at U of G.

The men's hockey Gryphons host York Jan. 21, Laurentian Jan. 23 and Ryerson Jan. 28. Game time is 7:30 p.m.

Volleyball Gryphons are at home to Laurier Jan. 27 at 6 p.m. (women's) and 8 p.m. (men's).

U of G's swim team hosts McMaster Jan. 23 at 8:30 a.m.

The Guelph Open Wrestling Tournament is Jan. 24, beginning at 9 a.m.

CONCERTS

The winter Thursdays at Noon concert series kicks off Jan. 28 in MacKinnon 107 with mezzo-soprano Patricia Harton-McCord and pianist Brian McDonagh. Admission is free, but donations are welcome.

"The Power of Youth" is the theme of a fund-raising concert Jan. 15 at 8 p.m. at the Macdonald Stewart Art Centre. The program features the Siren Ensemble from the U of G Women's Choir under the direction of Dominic Gregorio, the Guelph Youth Singers Ensemble and interpretive dancer Aurore Marguerin. Tickets are \$10 and \$8.

The School of Fine Art and Music and the Macdonald Stewart Art Centre present a concert of Klezmer and Yiddish music featuring Brian Katz on guitar and Martin Van de Ven on clarinet Jan. 30 at 8 p.m. at the art centre. Tickets are \$10 and \$6.

LECTURES

CPES Winegard visiting professor Rajendra Bhatia of the Indian Statis-

tical Institute in New Delhi will give five lectures during his visit. Topics are "Noncommutative Analysis" Jan. 27, "Noncommutative Differential Calculus" Jan. 28, "Noncommutative Versions of Classical Inequalities I" Feb. 2, "Noncommutative Versions of Classical Inequalities II" Feb. 3 and "Noncommutative Versions of Classical Inequalities III" Feb. 4. All lectures begin at 4 p.m. in MacNaughton 121.

Third Age Learning — Guelph's winter lecture series for retired people continues Jan. 27 with retired history professor Lew Abbott discussing "A Colossus with Feet of Clay" at 10 a.m. and Prof. Gord Surgeoner, Environmental Biology, exploring "The Ethics of Food" at 1:30 p.m. Lectures are at the Arboretum Centre.

NOTICES

The School of Landscape Architecture holds its annual Winterfest conference Jan. 29 and 30. This year's theme is "Spirituality and Technology." Departments and other schools are invited to form ball-hockey teams for games to run during the conference. For more information, call Ext. 6576 or send e-mail to emily@uoguelph.ca.

The Canadian International Development Agency's Awards Program for Canadians provides up to \$10,000 to individuals to participate in international development through a project of their own initiative. Application deadline is Feb. 1. Guidelines and application forms are available on the World Wide Web at www.cbic.ca.

Feb. 12 is the deadline to apply for U of G's international field study grants and the Don Snowden Program for Development Communication. Both programs provide support for students to expand and complement their studies with a global and cross-cultural experience. Applicants must be undergraduate students who have completed five full semesters or graduate students. Application forms for the field study grants are available from the Centre for International Programs Information Centre in Day Hall. For information about the Snowden program, call Prof. Don Richardson, Rural Extension Studies, at Ext. 3811 or send e-mail to drichard@uoguelph.ca.

A noon-hour yoga class for beginners or experienced practitioners will run Tuesdays at noon in UC004. For more information or to register, call Rev. Lucy Reid at Ext. 2390.

The Stress Management and High Performance Clinic is again offering classes on stress management this semester — a 5:30 p.m. session in UC 1708 and an 8 p.m. session in UC 441. Classes run Tuesdays and Thursdays beginning Jan. 19. Cost is \$40 for U of G students, \$60 for UGA members and \$120 general. The clinic is also offering a five-

session "Better Sleep Program" beginning Jan. 26. Classes meet Tuesdays at 6:45 p.m. in UC 335. Cost is \$50 for non-students. Registration forms are available at the Connection Desk. For more information, call Ext. 2662 or visit the Web site www.uoguelph/~ksomers.

During the winter semester, the McLaughlin Library and Veterinary Science Library are open 8:30 a.m. to midnight Monday to Friday and 10 a.m. to midnight on weekends and holidays.

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) has announced a new research program designed to approach agriculture, food and rural research more efficiently and effectively. Projects must have matching funding from non-government sources. Total possible funding is \$75,000 per project. Deadline for proposals is Feb. 24 to the Office of Research and Feb. 26 to OMAFRA. Information packages are available in Room 224 of the Reynolds Building.

The Organization of American States offers awards to Canadians for graduate studies and research abroad. Preference is given to work in Latin America and the Caribbean. Application deadline is Jan. 29. For information, visit the Web site www.iccs-ciec.ca.

The John G. Bene Fellowship in Social Forestry aids Canadian graduate students doing research on the relationship of forest resources to the social, economic and environmental welfare of people in developing countries. The C. Fred Bentley Fellowship in Forage Crops is also available under this program. Application deadline is Feb. 1. For information, call the International Development Research Centre at 613-236-6163, Ext. 2098, fax to 613-563-0815, send e-mail to cta@idrc.ca or visit the Web site www.idrc.ca.

The U of G/Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) research program invites submissions for new research proposals from faculty and college researchers. Proposals are especially encouraged from those who have not participated in the U of G/OMAFRA agreement in the past. Proposals must address program goals approved by the Agricultural Research Institute of Ontario and must be submitted by Jan. 29. For more information, visit the Web site www.uoguelph.ca/research/omafra/ or call 826-3809.

SEMINARS

The Department of Molecular Biology and Genetics winter seminar series begins Jan. 15 with Prof. David Josephy, Chemistry and Biochemistry, examining "Mutagenic Chemicals and Mutagenized Enzymes: Using a Mutation Assay to Study Human P4501A2 Structure and

Function" at noon in Axelrod 028.

The Department of Human Biology and Nutritional Sciences graduate seminar series begins Jan. 18 with François Peronnet of the University of Montreal discussing "Ingestion of Energy Substrates Before and During Prolonged Exercise: Lessons from Isotope Studies" at 3 p.m. in Animal Science and Nutrition 141.

The Department of Physics presents Graeme Luke of McMaster University discussing "Unconventional Superconductivity in 5r2 RuO4: Broken Time Reversal Symmetry" Jan. 19. On Jan. 26, the topic is "The Physics of Monitoring Nocturnal Bird Migration with Acoustic Microphones and Radar" with John Black of Brock University. The seminars begin at 4 p.m. in MacNaughton 113.

A videoconference seminar on "The European Union Perspective on Agricultural Trade Liberalization in the World Trade Organization" runs Jan. 29 from 1 to 3 p.m. at the Arboretum. Running simultaneously in Saskatoon and Quebec City, the seminar will be led by Stefan Tangermann, an agricultural economist at the University of Göttingen in Germany and an expert on international agricultural trade issues. To attend the seminar, register by calling Nasreen Alikhan at 826-3228, faxing to 826-3492 or sending e-mail to nalikh@omafra.gov.on.ca.

TEACHING SUPPORT

Teaching Support Services (TSS) presents a series of workshops on learner-centred teaching in January. Topics include "Learning Styles and Teaching" Jan. 20, "Techniques for Student Group Self-Evaluations" Jan. 21, "The Role of the Lecture in University Teaching: An Analysis and Discussion" Jan. 22, a "Peer Evaluation Forum" Jan. 25 and "Assessing Experiential Learning" Jan. 27. To register, call Helen Martin at Ext. 2973 or send e-mail to hmartin@tss.uoguelph.ca. For a detailed description of each workshop, visit the TSS Web site at www.tss.uoguelph.ca.

TSS is launching a series of Friday forums this semester to meet the specific needs of teaching assistants. The sessions will provide both practical information and a variety of opportunities for TAs to practise new teaching techniques. Discussion focuses on "Facilitating Student Learning with Style" Jan. 15 and "Presentations" Jan. 29. For more information, visit the Web site www.tss.uoguelph.ca/Tagape.html.

TSS is offering training workshops for faculty and instructional staff on "PowerPoint for Teaching" Jan. 26 from 10 to 11:30 a.m. and on "Web-Based Testing" Jan. 28 from 10 a.m. to noon. Workshops are held in Day Hall 211. Registration is limited. For more information or to register, call Helen Martin at Ext. 2973.

Need help creating a PowerPoint presentation or developing a Web page? Take advantage of TSS's new Learning Technologies Lab in Day Hall 211. On the last Monday of each month, the lab will be open from 1 to 3 p.m. on a drop-in basis for faculty and staff. Support staff will be available to assist with problems. To book additional time at the lab, call Pat Thompson at Ext. 2965.

THESIS DEFENCES

The final examination of Chris McKean, an M.Sc. candidate in the Department of Human Biology and Nutritional Sciences, is Jan. 15 at 9 a.m. in Animal Science 141. The thesis is "Relative Contributions of the Lumbar Spine and Pelvis to Trunk Motion During Sagittal Plane Manual Materials Handling Tasks." The adviser is Jim Potvin of the University of Windsor.

The final examination of Adrian Unc, an M.Sc. candidate in the Department of Land Resource Science, is Jan. 15 at 2 p.m. in Richards 038. The thesis is "Transport of Fecal Bacteria from Manure Through the Vadose Zone." The adviser is Prof. Michael Goss.

The final examination of Kevin Breitkreuz, a PhD candidate in the Department of Plant Agriculture, is Jan. 26 at 10 a.m. in Graham Hall 2302. The thesis is "Subcellular Localization of Gamma-Aminobutyrate Metabolism and Transport of Gamma-Aminobutyrate in Plants." The adviser is Prof. Barry Shelp.

The final examination of Kristin Moore, an M.Sc. candidate in the Department of Zoology, is Jan. 26 at 9 a.m. in Axelrod 265A. The thesis is "Effects of Small Differences in Temperature on the Final Stages of Reproduction in Male and Female Rainbow Trout." The adviser is Prof. Glen Van Der Kraak.

The final examination of PhD candidate Loong-Tak Lim, Food Science, is Jan. 28 at 2 p.m. in Food Science 241. The thesis is "Permeation of Allyl Isothiocyanate, Oxygen and Water Vapour in Synthetic and Biopolymer Films." The adviser is Prof. Marvin Tung.

COMMUNITY EVENTS

Nomination deadline for the YMCA-YWCA of Guelph's fourth annual Women of Distinction Awards is Jan. 29. Award categories are: arts and culture; business and professions; education, training and development; science and technology; wellness; community life; lifetime achievement; and young woman of distinction. For nomination forms, call 824-5150.

The Waterloo-Wellington chapter of the Canadian Wildflower Society will meet Jan. 20 at 7:30 p.m. in the Arboretum Centre. Guest speaker is herbalist Janice Canning-Mayer.

IN THIS ISSUE

INSIDE THIS ISSUE is complete coverage of the University of Guelph's preliminary MET operating budget as presented to Senate Jan. 19. See pages 2, 4 and 5.

3 MORE distance education courses planned for spring semester.

6 POLITICAL science chair Maureen Mancuso offers some insights on the Clinton factor.

7 GEOGRAPHER helps build global scientific consensus on climate change.

8 TSS gives instructors easier access to information and ideas on teaching and learning.

9 WORLD OF WORK program in OAC draws interest.

Nominees Sought for Alumni Awards

Annual honours celebrate alumni achievements

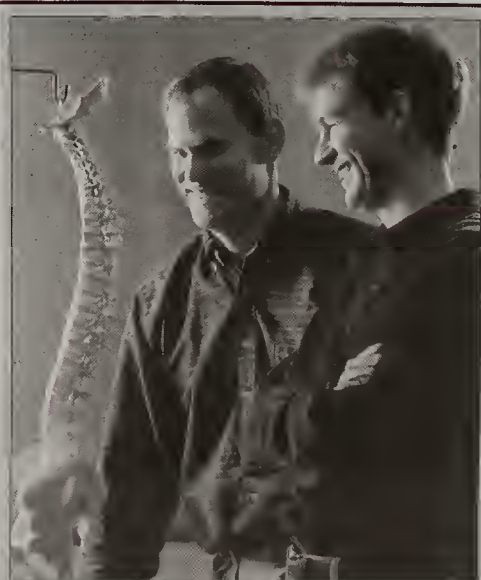
THE U OF G ALUMNI Association invites nominations for its annual awards of excellence.

The U of G Alumnus of Honour award celebrates the achievements of alumni who have brought great honour to the University through professional, community and personal endeavours.

The Alumni Medal of Achievement recognizes a graduate of the last 15 years who has achieved excellence through contributions to country, community, profession or the world of arts and letters.

The Alumni Volunteer Award honours alumni who have demonstrated loyalty and commitment to U of G through their volunteer work.

The nomination deadline for these awards is Feb. 26. Send nominations to Lavern Hambley, chair of the UGAA Honours and Awards Committee, at Alumni House. The awards will be presented in June. For more information, call Carla Bradshaw at Ext. 6533.



BONING UP ON BIOMECHANICS

U of G biomechanists Prof. Jim Dickey, left, and John Runciman are among a trio of researchers from the Department of Human Biology and Nutritional Sciences and the School of Engineering hoping for federal funding to improve their studies of human movement. See story on page 8.

PHOTO BY MARTIN SCHWALBE

Guelph Celebrates Internationalism

International Development Week recognizes Canada's place in the world

THE CANADIAN International Development Agency (CIDA) will mark International Development Week Jan. 31 to Feb. 6 by recognizing and promoting international development efforts across the country. This year's theme is "Celebrating Canada's Place in the World."

Here at Guelph, the week is a good time to take inventory of what's being done at U of G, why it's important and what hurdles remain, says Prof. Jim Shute, director of the Centre for International Programs (CIP).

"By definition, universities are about the universe and therefore places where all things are studied," he says. "We cannot draw geographical boundaries around knowledge. We've benefited immensely as an institution from our long experience and co-operation with our international partners."

U of G was the first Canadian university to have an international centre, and Guelph's programs and students have circled the globe. "When it comes to internationaliza-

tion, we've gone a long way down the road," says Shute, "but there is still some distance to travel."

He wrote the terms of reference that established CIP in 1967. He was working for the dean of the College of Arts at the time and later joined the Department of Rural Extension Studies. He became director of the centre in 1992.

When CIP was first organized, the University itself was new. "Canada, in general, was thinking about its commitment to the world," says Shute, "and the thinking that universities have an obligation to the world was part of that." Formally organizing an international centre seemed a natural progression.

Over the years, U of G has created numerous international development programs, student exchanges, study-abroad programs and other projects aimed at making the campus more international. Currently, it has about 60 study-abroad opportunities in 35 countries and sends more than 300 students to other countries each year. About 40 per cent of Guelph's faculty have inter-

Survey Reveals What Students Want in Spring Semester

Distance education tops the list as course format that best suits students' needs in spring semester

WHAT DO U OF G students want from spring semester? More core and distance education courses, financial aid information and six-week summer sessions, a first-ever spring semester survey of students reveals.

Distance education topped the list as the course format that best suits students' needs in spring semester, and offering more distance education courses was one of the main suggestions for increasing enrolment. In addition, distance education was listed as the most influential factor by students who attended spring semester in the past.

"I think the message is that distance education is seen by many students as a fabulous way to learn," says Prof. Alastair Summerlee, act-

ing associate vice-president (academic) and chair of the Enrolment Management Committee (EMC).

The spring semester survey is part of an ongoing effort by EMC to increase enrolment during the spring, when the number of registered students normally drops from about 12,000 to 3,000. The survey was conducted in November and compiled by Kathryn Elton in the Office of Registrarial Services.

Of 11,000 students surveyed, about nine per cent responded. Summerlee says the findings may not reflect all student needs because of the low response and the fact that most respondents were first- and second-year female students. "But it still was a very positive response to the spring semester," he says.

Registrar Chuck Cunningham says there has been much speculation about why spring enrolment falls, and everyone has a different theory. "The survey gives us real answers to some of these questions for the first time."

Students won't have to wait for their top suggestion to be implemented. During the 1999 spring semester, which runs May 4 to Aug. 3, the Office of Open Learning will offer 60 distance education courses, an increase of 35 per cent. The increased offerings are part of a long-term strategy to expand educational opportunities by distance and boost enrolment (see story on page 3).

According to the survey, students enrol in the spring semester for two reasons — to make up a dropped or failed course, or to get ahead and reduce future course loads. When it comes to the reasons students don't attend in the spring, the need to work full time to earn money tops the list, followed by a lack of required courses, a desire to take the summer off and the need to gain work experience. Uncertainty about financial assistance and being away from home during the summer were also factors.

Students said the best way to increase enrolment was to offer more courses, especially core courses. They also indicated a need for more six-week summer sessions and addi-

Continued on page 10

Continued on page 3



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SENATE REPORT

Winter Enrolment Predicted to Meet Budget Target

PRESIDENT MORDECHAI ROZANSKI welcomed Senate to its first meeting of the new year Jan. 19 with good news about winter 1999 enrolment. Although he had not received final numbers, all indications are that U of G has achieved its 1998/99 enrolment budget targets, he said.

The president informed Senate that the Council of Ontario Universities is completing the final elements of a comprehensive advocacy effort to increase public

funding of universities. Called "Meeting Expectations/Delivering Opportunities for Students," it is being presented to the government as an urgent need to start investing now to prepare for the anticipated "double cohort" problem of 2003 — when high school curriculum restructuring and the elimination of Grade 13 are expected to result in 35,000 additional university applicants — as well as to restore quality after five years of damaging cuts to universities.

BUDGET GAP LOOMS

Based on initial financial assumptions, U of G is facing a significant gap in its 1999/2000 preliminary Ministry of Education and Training (MET) operating budget, John Miles, assistant vice-president (finance), told Senate. According to the results of some preliminary financial modelling, Guelph could see a shortfall of \$3.98 million in the coming financial year, he said.

As in past years, there are no easy solutions to filling the gap. Typical solutions (in no particular order) are additional charges to ancillary units (Hospitality Services and Parking Administration), increasing enrolment above flow-through levels from previous years, increasing tuition and using year-end savings. As a last resort, the University would have to consider budget adjustments (clawbacks) across campus, said Miles.

In building the financial model, the University has reviewed with the Senate Committee on University Planning and the Vice-President Academic's Council the necessity of investing in the maintenance of quality for our students despite the challenging financial times, said Miles. To this end, the University is proposing to invest an additional \$1.48 million in 1999/2000 — \$350,000 for library acquisitions (a 10-per-cent increase over last year), \$200,000 for classrooms and teaching laboratories, \$235,000 for graduate student aid, \$600,000 for undergraduate entrance scholarships and \$100,000 for co-op expansion and career programs. (This last item would be the second of three annual investments in one-time bridging funding to support the expansion of co-op until it is able to generate enough revenue to be self-sufficient.)

This total of \$1.48 million is factored into the financial model that results in a \$3.98-million gap.

President Mordechai Rozanski noted that these investments are proposed at this stage and will be part of the discussions at upcoming community-wide information ses-

sions on the preliminary budget.

The base assumptions for the 1999/2000 preliminary MET operating budget begin with an opening structural deficit of \$6.8 million, which includes special early retirement plan repayment. The majority of this structural deficit is due to the cost of past compensation increases, which are ongoing obligations that have been met through one-time savings such as employer pension contributions and year-end savings. Added to the structural deficit are the proposed \$1.48-million investment in the maintenance of quality for students and a provision of approximately \$4 million for salaries and benefits to cover estimated increases for all 10 employee groups and changes to employer benefit costs. Miles stressed that the final compensation costs are subject to negotiations.

The preliminary budget assumptions about total net expenditures, including the "investments" in maintaining quality, equal \$12.28 million.

On the revenue side, the University expects to realize an additional \$1.6 million in 1999/2000 because of the enrolment flow-through from previous years' enrolment increases. No other assumptions about 1999/2000 enrolment levels or fees have yet been made, in anticipation of recommendations to come from the Enrolment Management Committee (see below).

For the first time since 1992/93, U of G anticipates an increase in funding from MET in the coming financial year. Unfortunately, it is only one per cent or \$835,000, said Miles, who added that the funding increase has not yet been confirmed by the ministry. In addition, Guelph will receive \$120,000 from a provincial "fair funding" program, money designated to hire additional faculty for undergraduate programs. The University also projects an increase of \$150,000 in interest income in 1999/2000.

The planning model assumes for now that all other revenue components of the budget, including the contract with the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), will remain at

their 1998/99 budgeted levels. Miles noted, however, that the University recently received a letter from the ministry suggesting a possible reduction, which the University will work in partnership with OMAFRA to avoid.

The University has assumed it will again be able to take an employer pension contribution holiday (PCH) in 1999/2000 — \$5.1 million this year — subject to the financial condition of the plan and the outcome of agreements reached with employee groups. This PCH is a one-time solution that does not involve the use of any pension funds — it is strictly a one-time savings in the operating budget.

An additional revenue item involves the net savings from employee turnover and retirements. U of G will save an estimated \$500,000 after replacement hirings. This represents the difference in salaries when faculty and staff retire or resign and are replaced with new hires at starting salaries.

Thus, total net revenues and cost savings in 1999/2000 are estimated at \$8.3 million. Deducted from net expenditures of \$12.28 million, this results in a budget shortfall of \$3.98 million.

A student senator questioned whether the University's contingency fund could be used to offset some of the budget shortfall. See related story on page 3.

CONSULTATION UNDER WAY ON BUDGET IMPACT

What impact will the projected \$3.98-million shortfall in U of G's preliminary MET budget have on student fees, tuition, enrolment levels and student aid? That's the issue facing members of the University community as they participate in wide-ranging consultations and discussions across campus, said Prof. Alastair Summerlee, acting associate vice-president (academic) and chair of the Enrolment Management Committee (EMC).

Extra urgency has been added to some of the discussions this year because of a major change in the university admission cycle in Ontario,

Continued on page 4

GUELPH

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NOMINEES SOUGHT FOR HONORARY DEGREES, PROFESSORS EMERITI

The winter deadline for nominations for honorary degrees and University professors emeriti is Feb. 28. Honorary degrees recognize outstanding contributions in the arts, humanities and sciences or honour persons outstanding in professional or public life. University professor emeritus status is awarded to faculty who will continue their scholarly association with the University after retirement. For information about the nomination process, call the Senate Office at Ext. 6758.

ALUMNI MAGAZINE LAUNCHES NEW LOOK

The winter issue of the *Guelph Alumnus* magazine, to be distributed on campus next week, features a new design and editorial direction. Published by Development and Public Affairs, the magazine reaches more than 60,000 U of G alumni and friends worldwide. The new-look publication launches regular columns called "In and Around the University" and "Research Notes" and contains a section called "Alumni Matters." Feature stories will look at the issues that are most important to Canadians and will focus on the people who contribute to Guelph's success. Copies of the magazine will be available from Communications and Public Affairs in the University Centre.

OVC ALUMNI GATHER AT FLORIDA CONFERENCE

About 100 OVC alumni from Canada and the United States turned out Jan. 10 for a reception hosted by OVC dean Alan Meek in Orlando, Florida, during the North American Veterinary Conference. OVC will also welcome alumni at a similar reception at the upcoming Western Veterinary Conference Feb. 14 to 18 in Las Vegas.

VET STUDENTS HOST LECTURE SERIES

The Veterinary Students' Association hosts an international lecture series next month, kicking off Feb. 4 with OVC graduate Mike Cranfield, head veterinarian of the Baltimore Zoo and president of the Rwandan Mountain Gorilla Project. He will discuss his work in Africa and the role of the modern zoo in conservation and education at 12:30 and 7 p.m. Next up is Phil Roudebush of Kansas State University, incoming president of the American Academy of Veterinary Dermatology. On Feb. 11, he discusses "Interpretation of Lung Sounds" at 12:30 p.m. and "Adverse Food Reactions in Animals" at 7 p.m. The series concludes with Karen Gellman of Cornell University exploring "Chiropractics and Acupuncture in Equine Medicine" Feb. 25 at 7 p.m. and Feb. 26 at 12:30 p.m. Lectures will be held in Room 1714 of the Lifetime Learning Centre.

More Distance Courses to Be Offered in Spring

Provost encourages departments to convert traditional courses into distance education

THE NUMBER of distance education courses offered in the spring semester will increase by 35 per cent as part of a long-term University-wide effort to expand educational offerings and boost enrolment.

The Office of Open Learning will offer 60 distance education courses this spring, including 12 new courses and nine that have been redesigned and redeveloped. Twenty-eight of the offerings will be Web-based. In addition, distance courses from the Department of Geography and School of Hotel and Food Administration will be available for the first time.

As part of U of G's strategy to boost enrolment, provost Iain Campbell had encouraged departments to convert traditional courses into distance education courses and develop new distance programs. Funding was provided from the Heritage Fund, which is used for one-time strategic investments for which there are no operating funds. In recent years, \$5.8 million from the fund has been invested in quality and innovation, including academic restructuring, upgrading of the student information system and financial management system, and development of TRELIS, a tri-university integrated library system.

Increasing the number of courses means more flexibility for students looking to take distance education courses to get ahead for the next school year or catch up on missed work, says Virginia Gray, director of the Office of Open Learning.

"Traditionally, spring is our most popular semester, and because approximately 75 to 80 per cent of students taking distance education courses in the spring are not on campus, it is truly education at a distance."

Rick Nigol, distance education program development co-ordinator, notes that U of G's students are scattered all over the world during the summer. They've taken exams for distance education courses from as far afield as Hong Kong, Taiwan, In-

dia, Australia, Saudi Arabia, Japan, Russia and England. "Distance education really opens up the world," he says.

New spring semester offerings include the courses "Human Impact on the Environment," "Principles of Sensation and Perception," "Introduction to Canadian Business Management," "Organizational Design and Effectiveness," "Masterworks of Music," "Intermediate Microeconomics" and "Nature Interpretation."

Nigol says the additional courses also open up learning opportunities for people not enrolled in traditional U of G programs. The open learning program allows individuals access to distance courses for professional development or personal enrichment.

"Education is not reserved for people who are 18 to 22 years of age," he says. "We are all constantly reinventing ourselves as the world around us changes. This reflects the need for more non-traditional open learning opportunities. It all has to do with outreach and making our institution accessible to different types of people all over the world."

U of G offers 93 degree-credit

courses and 11 non-degree courses via distance education. It has also increased the number of Web-based programs sevenfold since 1996.

"Online courses have really taken off," says Nigol. "This has given students even greater flexibility and independence."

Online courses are organized by weeks, allowing students to work at their own pace and schedule. "People are often studying online at 4 a.m., and they are not alone," he says.

The course selection period for the spring semester is March 2 to April 9. Students receive a manual that may be accompanied by videotapes, audiotapes and CD-ROM. The course may also involve computer conferencing, listservs, e-mail, computer-based quizzes and course Web sites. Students communicate with professors via the Internet, fax, telephone or computer conferencing. Final exams are written in a testing centre near the student's place of enrolment. Students also have access to library resources online.

BY LORI BONA HUNT

Efforts Paid Off with Higher Spring Enrolment in 1998

Continued from page 1

tional information about work study, financial aid and scholarships.

The survey's findings make it clear that spring semester efforts should focus on distance education, says Summerlee. It's an excellent way to address future problems such as handling the double cohort anticipated in 2003, he says.

"We are nearly at capacity with our physical facilities with the number of students and faculty that we have. Distance education is an ideal way to provide access without putting a strain on our physical re-

sources."

He recognizes, however, that adding distance courses also provides resource challenges for U of G.

Ongoing strategies for improving the spring semester include encouraging the participation of more faculty renowned for teaching excellence, offering more core courses and allowing new January and May enrolments. Efforts paid off last spring when enrolment actually increased for the first time in more than five years, Summerlee says.

BY LORI BONA HUNT

PEOPLE

DAIRY FARMERS HONOUR RETIRED ASSOCIATE DEAN

Retired associate OAC dean Bruce Stone was awarded a certificate of appreciation at the annual meeting of the Dairy Farmers of Ontario in Toronto this month. He was honoured for his contributions to the dairy industry during his career at U of G. He was a faculty member in the Department of Animal and Poultry Science from 1954 to 1962 and 1966 to 1994 and served as associate dean from 1983 to 1994.

FAMILY RELATIONS PROF GIVES NATIONAL TALKS

Prof. Donna Lero, Family Relations and Applied Nutrition, gave presentations this fall at the Health, Work and Wellness Conference in Whistler, B.C., the Balancing Work and Family Conference in Saskatoon, the Linking to Research to Practice Forum sponsored by the Canadian Child-Care Federation in Banff and at the Conference Board of Canada's Council on Workforce Solutions in Toronto. She also spoke at the International Symposium on Child-Care Policy in Canada, the United States, the United Kingdom and Australia, held in Toronto. U of G's Centre for Families, Work and Well-Being, which Lero co-chairs with Prof. Kerry Daly, co-sponsored the international symposium, as well as a symposium with the Vanier Institute for the Family Learning Partnership on "Creating a Family-Friendly Workplace: Practical Tools for Managers."

Journalist to Discuss Violence in Hockey

THE HUMAN RIGHTS and Equity Office is sponsoring a lecture by sports journalist and author Laura Robinson Feb. 11 at 7:30 p.m. in Peter Clark Hall. Robinson's talk will focus on her recent book, *Crossing the Line: Violence and Sexual Assault in Canada's National Sport*, which looks at the widespread institutionalized abuse in junior hockey, including its effect on women. She is also author of *She Shoots, She Scores: Canadian Perspectives on Women and Sport*.

Robinson's work on sports and gender issues has appeared nationally in magazines and newspapers and on television and radio. In 1996, she worked with the CBC's *fifth estate* to produce the documentary *Thin Ice*, which looked at initiations and sexual abuse in junior hockey.

Robinson is also an athlete who has competed nationally in cycling and Nordic skiing.

The talk is supported by U of G's Women's Campus Safety Initiatives Fund. Admission is free. A question period will follow the lecture.

IN MEMORIAM

Agricultural Leader Dies at 89

George Morris, a longtime friend of the University of Guelph and founder of the George Morris Centre, died Jan. 13 at the age of 89.

A self-taught man, renowned entrepreneur and leader of the agricultural industry, Mr. Morris chaired the committee that led to the creation of Canada's heifer-grading system, was a founding member of the Ontario Beef Improvement Association, was one of the original members of the Ontario Grain Corn Council and served as president of both the Ca-

nadian and Ontario cattlemen's associations. In 1989, he founded the U of G-based George Morris Centre, an independent think-tank with a mission to provoke dialogue on agricultural policies and issues and encourage innovations in the agri-food sector.

His many contributions to Canadian agriculture earned him a place in the Canadian Agricultural Hall of Fame and an honorary doctorate of laws from U of G. He was also the recipient of an OAC Centennial Medal.

Born in Alberta, Mr. Morris spent most of his life as a cattle producer in Merlin, Ont., running the family farm from the age of 14 after his father died. He was a pioneer in the feeding of corn silage to cattle and the first farmer in Ontario to mix urea with corn to improve its feed value. He remained active in farming to the end of his life.

His friendship with U of G, born of a common interest in agriculture, included strong support of the University's capital campaign in the 1980s.

SENATE REPORT

Continued from page 2

he said. As of this year, the initial round of offers of admission will go out at the end of February and beginning of March instead of June.

Because new students will want to know the costs of residence and food before choosing a university, EMC has asked Board of Governors to split its decisions on various aspects of fees and budgets for the year and bring housing and hospitality issues to an earlier board meeting. As a result, the board will now receive and consider the hospitality, housing and parking budgets at its Feb. 25 meeting.

In preparation of those budgets, consultations are under way involving students in discussions of food and housing rates. An advisory committee on parking, which includes students, is involved in consultations on any changes in parking rates.

At its March 25 meeting, B of G will receive and consider the 1999/2000 preliminary MET operating budget, enrolment and tuition fees and student aid. (A later meeting of the board will consider the OMAFRA budget.)

Consultation and discussion on enrolment, tuition and student aid is being carried out in two parts, similar to last year's process, said Summerlee. EMC will first develop principles on which recommendations will be based, then will develop recommendations. At each stage, the development of principles and recommendations will involve a consultative process where drafts will be developed by EMC, shared with the community, then modified before a final version is available.

Summerlee expects to have draft principles ready for discussion by the end of January. Following input from the University community, a final version will be prepared by mid-February. Based on this, EMC will draft recommendations by the end of February and again present them to the community for discussion. Final recommendations will be completed by mid-March. To accommodate the timeline, he asked that the March meeting of Senate be changed from March 9 to March 13.

Consultation and discussion on enrolment, tuition and student aid will occur with a number of formally constituted groups on campus, including student groups, committees and Senate (for a list of upcoming

meetings, see box below). There will also be town hall meetings open to all members of the University community, as well as consultation sessions at the University's off-site agricultural colleges.

He is also writing to college governments and presidents of residence halls to indicate that members of EMC would be willing to meet separately with these groups to share information about the consultative process and the progress on dialogue.

To encourage input from the University community, ongoing information about the consultative process will be published in @Guelph, in the *Ontarian* and on the Web at <http://www.uoguelph.ca/newswatch/budget/consult.html> (or through U of G's home page).

COLLEAGUE UPDATE

Summerlee told Senate that U of G's new student information system, Colleague, would soon be going live. The launch was originally slated for September, but had been postponed to January because of delays in the delivery of software, issues related to implementing the University's new credit system and serious illnesses among staff working on the information system. There are backup plans during the initial phase of implementation to ensure there is no risk to data during the move to Colleague, he said.

Summerlee also reported that a Web version of Colleague will arrive at the beginning of February. Once this is installed, tested training will begin on the Web version, which will be the access route that most people will use. He announced that Brenda Whiteside, academic assistant to the provost, will manage the communication strategy surrounding Colleague implementation. The communication plan will include a Web site and updates by electronic mail.

Summerlee lauded the dedicated efforts of the many people involved in bringing Colleague to implementation. He also praised the system provider, Datatel, for the support it has provided the University. He noted that by selecting Datatel, Guelph is paying only a fraction of the cost that other Ontario universities are paying for similar systems.

INTELLECTUAL FREEDOM FORUM

Student senators presented a proposal for a "semester of inquiry and dialogue," a forum to explore freedom of expression and academic and intellectual freedom in Canada. Events would include a lecture series and a symposium. Senate strongly supported the proposal as a reaffirmation of the principles of intellectual and academic freedom articulated in the learning objectives and mission statement of the University. Watch for more details in the next issue of @Guelph.

AFRICAN FIELD STUDIES PROGRAM RAISES QUESTIONS FROM STUDENTS

A written report on associate membership in the Canadian field studies in Africa program prompted some questions from members of Student Senate Caucus about the rationale, cost and description of the program. A detailed discussion ensued between students and OAC dean Rob McLaughlin, who was involved in developing the program.

Seven students are currently participating on letter of permission in the semester-long African field studies program. If a formal proposal is received for a U of G semester-abroad program, it will be reviewed by the Senate International Committee, Board of Undergraduate Studies and Senate.

GRADUATE STUDENT REPRESENTATION CHANGES TO REFLECT RESTRUCTURING

A change in graduate student representation on Senate was approved to take effect in 1999/2000. Graduate diploma and degree students will be entitled to at least six seats on Senate, with representation as follows: one member for any college with 500 graduate students or less and two members for any college with 501 graduate students or more.

In response to a student senator's suggestion that graduate student representation on Senate was being reduced by this motion, Prof. Kris Inwood, Economics, chair of Senate's Bylaws and Membership Committee, said the new structure is, in fact, aimed at preserving and even increasing student representation.

He noted that in the past, graduate student

representation on Senate has been determined on the basis of one seat per college, plus an additional seat for the University School of Rural Planning and Development (USRP&D). If this policy were to continue, two graduate student seats would be lost due to last year's merger of the College of Social Science and FACS into the College of Social and Applied Human Sciences and the merger of USRP&D, the School of Landscape Architecture and the School of Rural Extension Studies into the College Faculty of Environmental Design and Rural Development.

The new representation structure ensures that graduate students will always have six or more seats on Senate, he said.

Senate also approved two other motions from the Bylaws and Membership Committee. In accordance with the restructuring of the University from seven colleges to six, college representation on the Board of Graduate Studies, Research Board, Senate International Committee and Senate Committee on Open Learning will be reduced from seven faculty to six. Similarly, one dean will be eliminated from the Board of Undergraduate Studies. Both changes go into effect in 1999/2000.

MEDAL RECOGNIZES SERVICE TO U OF G

Senate approved a new award that recognizes the increasing involvement of alumni and members of the broader community in the activities of U of G. The Medal of Distinguished Service will honour an individual who has played a pivotal role in the functioning and governance of the institution and who has influenced the quality of academic life and character of the University. The award will be open to alumni and members of the community as well as former members of faculty and staff.

In proposing the award, the Senate Executive noted that the qualifications for U of G's existing honorary degrees and associated Senate awards do not always permit recognition of certain contributions. In addition, the existing awards that acknowledge individual contributions to U of G are primarily for faculty.

The Medal of Distinguished Service will be awarded at a convocation ceremony, with nominations due by Dec. 31 each year.

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Discussion Period After the Presentations

CONSULTATION ON ENROLMENT, TUITION, STUDENT AID

- | | |
|----------|---|
| Feb. 1 | Senate Committee on University Planning (SCUP) |
| Feb. 2 | Student Senate Caucus |
| Feb. 3 | Central Student Association (CSA) |
| Feb. 4 | Student Executive Council (SEC), Executive Group |
| Feb. 5 | Townhall meeting, Committee on Budget Issues (COBI) |
| Feb. 8 | Interhall Council |
| Feb. 9 | Senate, Consultative Forum |
| Feb. 10 | Graduate Students' Association (GSA) |
| Feb. 16 | Board of Governors Finance Committee |
| Feb. 24 | Vice-President Academic's Council |
| Feb. 25 | Board of Governors |
| Feb. 26 | COBI |
| March 1 | PBAG, SCUP, Interhall Council |
| March 2 | Student Senate Caucus |
| March 3 | COBI, CSA, GSA |
| March 4 | Executive, SEC, Senate Executive |
| March 5 | Townhall meeting |
| March 8 | SCUP |
| March 9 | Consultative Forum |
| March 10 | Board of Governors Finance Committee |
| March 11 | Senate Executive |
| March 16 | Senate |
| March 25 | Board of Governors |

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A Close-Up Look at the Preliminary Budget

Editor's note: @Guelph sat down this week with Nancy Sullivan, vice-president (finance and administration), and John Miles, assistant vice-president (finance), to discuss the University's preliminary budget picture presented to Senate Jan. 19. AG: This is the first year since 1992/93 that U of G expects to see an increase in its MET operating grant. How does that affect our overall financial picture?

NS: There are two points that I'd like to be very clear about. First, it's not certain at this point that the University will receive an increase from MET. Our expectation of a one-per-cent increase is based on a government announcement made in December 1997, and we have received no further confirmation since then. At best, we expect to see a one-per-cent or \$835,000 increase in the grant. Compare this with the \$26 million in cuts to our MET grant since 1992/93 (\$33.4 million if you include the Ontario Ministry of Agriculture, Food and Rural Affairs budget). I would also point out that seven years ago, government funding accounted for 70 per cent of our MET operating budget; today, it is only 56 per cent.

AG: U of G will also receive \$120,000 this year from the government's "fair funding" grant program. Will that have any noticeable impact?

JM: Although any new funding is welcome, the fair funding grant is

designed specifically for hiring additional faculty for undergraduate programs. To obtain the funding, the University must submit a detailed five-year plan on how these funds will be used. This is part of a growing trend by MET to target funding. This limits our flexibility in how we internally allocate the funding and does little to address our ability to deal with the structural deficit.

AG: How has the University managed to meet its annual budget targets in the face of these cutbacks?

JM: The University has taken a multifaceted approach over the last four or five years. Painful restructuring and downsizing strategies were required three or four years ago. More recently, we have relied on one-time financing schemes and enrolment and tuition fee increases. Through a lot of hard work and the co-operation of the University community, we have successfully increased our total enrolment base. By doing so, we have avoided the necessity of taking the maximum tuition increases allowed by the government. As our structural deficit has grown, largely due to base increases in compensation, we have relied increasingly on one-time solutions such as the employer pension contribution holiday (PCH) and year-end savings. These, in turn, are dependent on external forces such as market returns and events beyond

our control, including the weather. To date, these forces have been working with us. Last year, for example, we benefited from a warm winter and from a Revenue Canada ruling that forced the University to take a PCH because of the levels of our pension plan surpluses — due to very positive recent market returns on the plan's assets. The additional savings of \$2 million was part of our year-end available funds in the operating budget, which we used to close the 1998/99 budget gap. Let me repeat that this did not come from the pension plans but from the operating budget. This avoided the need for budget cuts and allowed the University to invest in much-needed classroom improvements and to expand co-op and career services. It also provided for a needed increase in our contingency fund. We've been lucky, but we can't go on relying on one-time solutions. They do nothing to help address our structural deficit.

AG: Can the contingency fund be used to help offset this year's budget shortfall?

JM: Our contingency fund, which was initially \$1.3 million last fall, was earmarked (as mentioned at Senate and during last year's budget presentation) in the 1998/99 budget for a number of areas, including start-up costs for the coming capital campaign until it can be self-funding, and maintaining a safety net to address unbudgeted needs such as

the Y2K problem as well as unanticipated expenditures or revenue shortfalls. Last year, this money was also used to upgrade classrooms. The total amount earmarked or appropriated to date for these various items is close to \$800,000. We won't know the final allocations until the end of the year because, for example, the University is facing additional costs surrounding the recent January snowstorms. Any remaining contingency funds will form part of the year-end savings that can be used to help meet the 1999/2000 gap.

AG: Why is the University proposing to invest an additional \$1.48 million in library acquisitions, classrooms, undergraduate and graduate student assistance and expansion of co-op and career programs?

NS: Despite the drastic declines in MET funding, we must continue to invest in quality for our current students and generations of students to come. We must do as much as is budgetarily feasible to support student learning and accessibility.

We must not forget that investing in the quality of our faculty and staff is also a crucial aspect of maintaining the quality of the overall experience for our students. We have negotiated compensation increases for all employee groups in each of the last three years and have made significant pension improvements over the same period. In regards to faculty, the University has continued to offer

competitive salaries relative to other Canadian universities and has replaced more than 90 per cent of all vacancies in recent years. Despite dramatic declines in real levels of government funding since 1992/93, recent comparative data indicate that our long-term commitment to maintaining the fifth highest faculty salaries on an overall basis in the Ontario system has been surpassed. Based on age-adjusted data for Ontario universities, Guelph ranks third overall — first for assistant professors, second for associate professors and eighth for full professors. This represents a move from fourth overall in 1997. As I indicated in response to a question last week from a faculty senator, the administration intends to meet the deferred TAPSI repayment schedule negotiated as part of the 1997/99 salary and benefit negotiations. This called for repayment of all deferred TAPSI by January 2000.

It's important to note that most of this investment in quality for our students, faculty and staff has been paid through one-time funding solutions. Once again, these one-time solutions do not help us deal with our structural deficit. The only real solution is to increase unrestricted public funding. As the president's remarks at Senate indicated, that is what he and the Council of Ontario Universities are making their major advocacy priority.

Have Fun With History



1. What president/principal is not remembered by a street, walk or building name?
2. Where was the first Student Union?
3. The clock in the tower of Johnston Hall commemorates what?
4. Where was the gymnasium or Convocation Hall located?
5. Where do you find evidence of the WWII No. 4 Wireless School?
6. Where was the first arboretum?
7. When was Johnston Hall completed?
8. Where is the inscription "56 generations of students passed through this portal 1874-1999"?
9. Where does Zavitz Hall get its name?
10. What is the motto of OAC?
11. The cannon was made in the reign of which monarch?
12. Which hall is named after a son-in-law of president Mills?
13. The president's house was built for which president?
14. What was the former name of Drew Hall?
15. Where is Brown's Woods?
16. Name an earlier use of Alumni House?
17. For what purpose was the Landscape Architecture Building built?
18. Johnston Hall sits on what land form?
19. When was the fire hall built?
20. When the college began, what was Gordon street called?
21. Who was the first OAC graduate to become president of his alma mater?
22. Who is Stone Road named for?
23. The 125th anniversary may also be called what kind of celebration?
24. Where is the OAC students' 1974 time capsule?
25. Who was the last president of OAC?

Find the answers in this listing:

George I. Christie — born — Frederick W. Stone — George C. Creelman — the Professor of Agriculture — William R. Reek — on the front campus — Massey Hall — Queen Victoria — a piggery — stoney Guelph loam — a plaque in the main entrance to Johnston Hall — Nulla Dies Sine Linea — the Textiles Building — across Smith Lane from OVC — 1931 — E.J. Zavitz — Year '49 BSA — Charles A. Zavitz — Bursar Hall — Rerum Cognoscere Causas — a seed cleaning plant — Creelman — in the Dairy Bush — drumlin — Per Ardua Ad Astra — on the 80th anniversary of OAC — on the Landscape Architecture Building site — in Wellington Woods — George III — the MacKinnon Building's outdoor courtyard — Dundas Road — John D. MacLachlan — quassucentennial — sheep barn — 1933-1954 — sesquicentennial — the Johnston Portico — trimester — President's coach house

The first 25 questions in an OAC 125 quiz to test your knowledge of OAC history. Check your answers on the OAC 125 Web site at www.oac.noguelph.ca/OAC125, or check the Feb. 24 issue of @Guelph.

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Correction

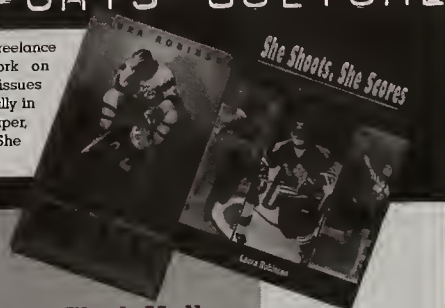
In the Dec. 9 issue of @Guelph, the list of U of G employees honoured in 1998 for 25 years of service contained an incorrect name. The correct name is Tony Pellizzari.

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THE IMPEACHMENT CONUNDRUM: IMMOVABLE OBJECT MEETS IRRESISTIBLE FORCE

*"The public is content to accept Clinton for what he is,
a competent public administrator with significant personal weaknesses."*

BY MAUREEN MANCUSO

SOMETHING ABOUT the impeachment and trial of American president Bill Clinton has been strangely lifting my spirits. On the eve of what would prove to be the most surreal State of the Union address, I realized why: It's just so refreshing for some country other than Canada to be mired in constitutional crisis for a change.

The U.S. Congress has aimed its ultimate weapon — the constitutional "neutron bomb" of impeachment — at the White House in an effort to remove the president from office for alleged crimes of perjury and obstruction of justice. But very few Americans actually support this effort. In fact, even though only 49 per cent of the U.S. public voted for Clinton in 1996, as many as 80 per cent want him to remain in office. And Clinton's approval ratings — always high through this long economic expansion — have been breaking records even as he has been demonized and vilified on the floor of the House of Representatives and now the Senate.

The Republican leaders controlling Congress claim to be trying to save the nation from the corrupting influence of a man who has threatened the integrity and symbolic lustre of the office of president. Clinton's supporters accuse the Republicans in turn of subverting the constitution to overturn two democratic elections.

What's going on here? Leading Republicans seem agonized that the public has not been able to "see through" all the denials and evasions to the "real" Bill Clinton. They insist that eventually the Senate trial will prove to the public that they do not like this man after all. The media have also been in a frenzy for a full year, constantly predicting an imminent resignation or a sure sudden downturn in public approval that never seems to come.

The truth is more likely that the public saw the real Bill Clinton long ago, in 1992, and didn't run away. His campaign for president began with accusations of adultery and his evasive responses to them. When Americans ultimately decided to support him for president, they did it without illusions that they could call on him for moral leadership.

Clinton didn't offer himself as a model of behaviour for the youth of the nation, but as a "policy wonk," someone who could get things done and who could manage the nation well, or at least better than George Bush could. And after a rocky first few years, the people have grown quite comfortable with their choice. The economy is up; crime is down. Many of the nation's problems, if not solved, at least seem to be under control. Even if Clinton is not fully responsible for these good times, the public is not interested in upsetting the apple cart when it's running so smoothly. In such an environment, the public is content to accept Clinton for what he is — a competent public administrator with significant personal weaknesses.

Congress, or at least the ascendant wing of the majority Republican party, doesn't see it this way. To them, personal weaknesses — flaws in character — have become paramount. Clinton's chief prosecutor, Representative Henry Hyde, asserts that Clinton's behaviour mocks and denigrates the American ideals of truth and respect for the law and that his very presence in office diminishes the country. He is not fit to serve because of the kind of person he has shown himself to be.

This emphasis on character and the personalization of politics is in a sense the culmination of the very trend that finally brought the Republicans to power in Congress. Newt Gingrich, architect of the Republican takeover, didn't just devise the Contract with America; he changed the very conception of American legislative politics. Rejecting the cozy collegiality of Capitol Hill, he declared total war on his opponents, casting them as not

merely on the wrong side of the issues, but also as immoral and dangerous people with desires inimical to the country's welfare.

In the late 1980s, Gingrich discovered how effective ethics charges could be in partisan warfare when he brought down House Speaker Jim Wright. As minority whip in the early 1990s, Gingrich recruited a number of radical Young Turks to the Republican ranks, all of them dedicated to this street-fighting political mentality. As Speaker of the House, he declared the Clintons and their allies to be "enemies of normal Americans."

This tactic was clearly successful at first. In 1994, after four decades of languishing in the minority, Republicans took control of the House of Representatives and, with it, the nation's policy agenda. And they did so with attack ads that linked Democratic candidates to Clinton by "morphing" them into one another. Clinton was the ideal opponent for this strategy; he kept giving them more ammunition.

The Republican takeover generated a huge swell of anti-Clinton momentum in Congress — a whole cohort of members who owed their election to him (in a contrary sort of way). Gingrich is now gone, a casualty of his own abrasiveness and Clinton's unexpected resilience, but the momentum remains. How can we expect such a Congress not to push and push hard for the most severe retribution now that it has finally found some charges that might stick?

The media have been caught up in a similar sort of momentum. When JFK brought women into the White House, reporters exercised discretion and turned a blind eye. But in the quarter-century since Watergate, the media have learned the escalating value of keeping a juicy scandal in the public eye. "No New Developments in Lewinsky Case" is not a headline that sells papers, nor is "Public Doesn't Care, Wants Issue Dropped." But despite all the "Crisis at the White House" special reports, for much of the last year, so few reportable facts were available that most media organizations tended to focus not on what the principals were saying but on what other news outlets were saying. When CNN's top story is about a *Drudge Report* leak on the Internet of a *Newsweek* story, the media "feedback" (in the science of acoustics, a term used to describe the harsh screeching noise a sound system makes when its primary input is its own output) overwhelms any real content.

When the facts finally began to flow, they came like so much sewage — the president's taped grand jury testimony, the Starr report and its associated documentation, the Tripp tape transcripts — all chock full of discussions of who touched whom on what body part. Although fascinated by the details, like passers-by at a car crash, the public recoiled from being confronted with this unsavoury information. After all, it was quickly clear that the ultimate cause of the whole scandal was not a public matter.

Richard Nixon orchestrated crimes from bribery to burglary to fix an election; Bill Clinton had yet another tawdry and misguided extramarital affair. For that matter, Ronald Reagan and George Bush lied to Congress about a very public matter — covert illegal arms deals amounting to millions of dollars. With Nixon, of course, it was the subsequent cover-up that ultimately did him in. But with Clinton, it seems quite reasonable to argue that some things should be covered up.

Thus Congress and the media are both unwilling and unable to do what the public appears to have done: separate issues of character from issues of competence and fitness for office. This separation also divides the House majority that impeached the president from the public majority that supports him. A notable exception was Republican Representative Chris Shays, who commented before voting against impeachment that "the impeachable offences were not proven and the proven offences are not impeachable."

The Congressional leadership and many "talking heads" argue that it would be hypocritical to allow a president who has committed crimes like perjury to remain in office. Larry Flynt argues in turn that it is hypocritical for concealed adulterers like Bob Livingston and (allegedly) Bob Barr to prosecute the president for concealing adultery. The public seems willing to accept that if Clinton concealed adultery — even if he actually perjured himself and obstructed justice in doing so, according to recent polls — he can still perform the duties of his office without damaging the fabric of the nation. They never expected him to be a hero, just to take care of the country.

And so this is "Constitutional Crisis," American style. Or rather "Constitutional Crisis Lite," because Watergate was for a while the real thing. Since the scandal first broke a year ago, there have been loud calls for the president to resign, and he has just as forcefully signalled his determination to stay in office. Continued pursuit of impeachment is generally acknowledged to have cost the Republicans significant support in the November elections, not that they could have backed off even in their own self-interest.

As the trial in Senate began, they seemed to believe that the impeachment process might finally prove to be the irresistible force that could drive Clinton from the White House. But that force may be up against an immovable object even more formidable than the remarkably resilient Clinton. Whatever happens to him personally, the combination of the public's independence, fatigue and disgust with this whole issue is capable of not only absorbing that force, but also reflecting it petulantly back at those who set it in motion. It is constitutionally certain that Bill Clinton will no longer be president in 2001; how many of his prosecutors will survive him?

Prof. Maureen Mancuso is chair of the Department of Political Science and teaches courses on U.S. politics and corruption, scandal and political ethics. She is lead author of the recent book A Question of Ethics: Canadians Speak Out, a report on Canadians' opinions about the behaviour of their politicians.



WEATHERING THE CHALLENGE OF CLIMATE CHANGE

Guelph geographer helps build global scientific consensus on climate

BY ALEXANDER WOOLEY

WILL YOU NEED an umbrella in the year 2004? Impossible to say? Well, that's the sort of challenge facing Prof. Barry Smit, Geography, who last autumn was named a co-ordinating lead author on the United Nations Intergovernmental Panel on Climate Change (IPCC).

The prestigious appointment means that Smit will share responsibility for building global scientific consensus on the world's changing climate. That insight will then be offered to world leaders in hopes that it will stave off potential disaster wrought by shifting weather patterns and rising seas.

Smit describes his partial secondment to the UN as "an honour, in part because of the importance of this work. Climate change is a huge issue, it matters a great deal to the world as a whole, and we absolutely need to have rigorous scholarship on the subject. When I'm a doddering old coot and my grandchildren come up to me and say, 'What did you do?' I can tell them I gave it a good shot, I made an effort."

His colleagues believe he's perfect for the job. Richard Haworth, a director general of the Geological Survey of Canada, Natural Resources Canada, describes Smit as "the fount of all wisdom as regards climate change adaptation." Roger Street, director of Environment Canada's Environmental Adaptation Research Group, calls Smit "an expert who has always shown constructive leadership on the climate change issue."

Over 22 years and some 70 sponsored research projects, Smit has focused his work on marrying sustainable agriculture with the vagaries of the weather. He has studied climate deviations and reforestation, helped farmers make better decisions in crop selection, worked out probabilities of specific climate changes, and examined the agricultural decision-making process. This has taken him as far afield as China, the Philippines, Russia, Indonesia, Argentina, Ethiopia and his native New Zealand. Along the way, he also won U of G teaching awards in 1994 and 1995.

Throughout, Smit has grappled with understanding the "holistic" nature of climate change, how it affects every living thing on the planet. Approaching the epilogue of this millennium, there aren't many issues much more holistic than global warming.

In the 1980s, mounting scientific evidence and public concern about global warming combined to make politicians sit up and take notice. The IPCC was established in 1988 to assess cause and effect and what can be done about it. Enter Smit, specializing in climate adaptation, but perhaps more important, a geographer.



"Early on in this process, it was climatologists and meteorologists saying, 'Look, here's the science of the climate change problem,' but that didn't take into account the economic, human, social and political aspects of climate change that are intricately woven into this problem. We geographers are trained to examine how things are interconnected. We're trained in the physical and biological sciences and social and economic sciences, as well as being used to different spatial scales. So we can bring a 'big picture' type of scholarship to bear on a 'big picture' issue like climate change."

Prof. Alun Joseph, chair of the Department of Geography, agrees. "Barry's appointment is in large part a reflection of his expertise and track record as a researcher and a communicator, but it also reflects the ability of geographers to work across the boundaries between the natural and social sciences."

The results of Smit's IPCC labours will be contained in a single "assessment" report, to be presented to governments and the UN Framework Convention on Climate Change, which aims to ensure that the efforts of some 1,000 scientists make a difference. If the track record is anything to go by, it should at least get the world's attention. The first assessment in 1990 was key in getting world leaders to the Rio "Earth Summit" in 1992, and the 1995 assessment led to the Kyoto conference in 1997 (Smit contributed to these both). This third assessment will be finished by 2001.

The call of the UN means Smit must be not only teacher and researcher, but also information collector, consensus builder and sensitive policy adviser. It is perhaps fitting therefore that his partial secondment is sponsored by the federal government.

"IPCC has essentially tapped the world market for the best people," says Haworth. "As a lead author, Barry had to be chosen internationally and his nomination had to be agreed to in-

ternationally. He now is in the position, in turn, of identifying and soliciting people from around the world, and he will be looked at as an authoritative figure on the subject, with a broad appreciation of all the areas of work under way, then building consensus."

Adds Street: "The role of the IPCC is to continue to challenge scientists and the international policy community. The difficulty is that the IPCC is a scientific community looked to by the policy community, so the lead authors must provide credible science to the policy community that states the case just right."

The cynic might say that politicians rarely listen to scientists and that when they do, it's either too late or they do the exact opposite of what the scientists recommend. But perhaps because of the high visibility of global warming and climate change, Smit and his fellow scientists are all

too aware that they have the ear of the world's politicians. They have to make sure the subtleties are understood, which is all the more important this time around because this third assessment report will focus on adaptation, and the science community wants to make sure politicians don't snap up adaptation wholesale at the expense of cutting emissions, Smit says.

"The key thing about the 1995 assessment was the statement that there is a discernible human effect on the climate — 'the smoking gun.' This is the consensus that fossil fuels and deforestation have an effect on climate. Politicians understood this, which led to the Kyoto protocol of 1997, where countries like Canada committed themselves to reducing greenhouse gas emissions. My specialty is adaptation. If we acknowledge — but don't condone — climate change, how can the inhabitants of Planet Earth adapt to this change? And whatever the answer is to that, it can only be part of a dual strategy, one of reducing emissions and promoting adaptation to changed conditions."

Adds Haworth: "There is a danger that if you concentrate too much on adaptation, people will say you don't have to cut emissions, which is wrong. People could take the easy way out. So when you discuss climate change on a national scale, you have to have some political savvy, some policy knowledge, which Barry has, and which I am sure he will have good cause to use in the coming months."

It's a tall order, but that descriptor also applies to global warming itself. "Think global, act local" is a motto of modern environmentalists, but that won't be enough to solve global climate change, says Smit.

"The world has to take action on this. Just working locally won't do it. You need to have the participation of the major countries and industry or it simply won't work."

PHOTO BY MARTIN SCHWALBE

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Joint Forces

Three researchers bring varying perspectives to common problems

THREE RECENTLY HIRED U of G faculty hope to land federal funding for equipment to conduct studies of human movement that might help in designing everything from better joint implants to safer workplace practices.

Coupled with equipment in a Powell Building laboratory long used in measuring biomechanical forces, the hoped-for device would make Guelph one of the few Canadian universities where researchers could study overall forces and movement of the human body.

"We see this as one facility to study whole body movement and also tissue mechanics — what's happening in ligaments, discs or tissues," says Prof. Jim Dickey, Human Biology and Nutritional Sciences (HBNS), who studies the ligaments of the lower spine.

He and his partners — Prof. Jack Callaghan, also of HBNS, and Prof. John Runciman, School of Engineering — are biomechanists, scientists who straddle engineering and biol-

ogy to study human movement.

The biomechanics lab on the second floor of the recently renovated Powell Building is already well-equipped for force analysis, says Dickey. The existing equipment — which he says is analogous to a set of high-tech bathroom scales — records everything from an ordinary walking stride to the impact of a basketball player's foot during a jump shot to the distribution of forces as someone shifts from a wheelchair to a bed. A new motion analysis system would offer faster, more convenient and more accurate measurements of body movement.

Runciman says few universities have the hoped-for combination of motion and force analysis systems. And fewer still have the amount of room or the optimum configuration offered by Guelph's cube-shaped lab. Most labs have lower ceilings, which limits athletic activity, or shorter walkways for running and gait analyses, preventing subjects

from striding out at their natural walking or running pace.

All three faculty have joined U of G in the last year. Dickey, whose background includes engineering and kinesiology, and Callaghan, a kinesiologist, study the anatomy and mechanics of the lumbar spine.

Through his studies, Callaghan hopes to learn more about how long or how intensively people can perform low-impact repetitive tasks before sustaining injuries.

Runciman, who has spent the last four years designing spine and shoulder implants for Canadian and U.S. orthopedic companies, hopes his studies will help those companies design better implants to correct deformities such as scoliosis and to treat shoulder instability often caused by athletic injuries.

The researchers bring varying perspectives to common research problems, says Runciman. "The three of us together are better than any of us could be individually."

BY ANDREW VOWLES

TSS Offers Easier Access to Information

Teaching Resource Centre gets new look

IF IT'S BEEN A WHILE since you visited Teaching Support Services (TSS) in Day Hall, you might check out its new-look Teaching Resource Centre (TRC).

TSS has recently redesigned the centre and beefed up its resources to give instructors easier access to more information and ideas for improving university teaching and learning, says TSS director Prof. Julia Christensen Hughes.

She says the changes reflect more widespread interest in teaching and learning among U of G instructors and administrators. Noting the growth of departmental committees on teaching and learning across campus, she says: "Faculty now have to submit teaching dossiers as part of their tenure and review process. There's an expectation that faculty should spend more time reflecting on teaching."

Among the new services and resources available at the Teaching Resource Centre:

- Many resources, including information on teaching awards, conferences and workshops held on and off campus, and Internet-based links on higher education topics and resources are available on the centre's Web site (www.tss.uoguelph.ca/trc.html), which is linked to the redesigned TSS site (www.tss.uoguelph.ca/). On the centre's Web site, an online catalogue now allows users to browse through hundreds of items on teaching and learning, and to reserve those resources in Day Hall. (You can also reach the TSS database by clicking on "Subject Resources" on the main page of the U of G Library site). An online "Book of the Month" feature con-

tains synopses written by TSS staff of new titles; January's pick is *Teaching with Style* by Anthony Grasha.

• TRC visitors may view or borrow a series of "critical incidents" videotapes developed by the University of Victoria whose short case studies are designed to prompt discussion on teaching and learning issues.

• The centre's revamped space allows instructors to use video and audio resources more comfortably. Visitors can browse more easily through a range of printed materials, including copies of *The Teaching Professor* newsletter and eight other current journals on education. New books currently available in the resource library cover such topics as faculty development, graduate teaching assistants, learning and cognition, student assessment, learning technologies and instructional methods (check the TRC Web site for an up-to-date list).

• For instructors researching teaching and learning issues, the centre's research support service can help with consultations, literature reviews and assembly of custom resource packages covering everything from course evaluations and multiple-choice exams to learner-centredness.

A key development is the recent promotion of former TSS part-timer Jeanette Dayman to full-time TRS co-ordinator. "For faculty wondering where to start, this centre will provide a vital link to that base of support," says Dayman, now completing her master's thesis on collaborative learning in higher learning through the School of Rural Extension Studies.

BY ANDREW VOWLES

U of G Hosts Francophone Writers

ON FEB. 10, U of G will showcase the first in a series of readings by francophone writers that is jointly sponsored by the Canada Council, the College of Arts and the schools of Languages and Literatures and Fine Art and Music.

Quebec poet and novelist Monique Juteau and musician Catherine Potter will perform at 7:30 p.m. in the Whippletree.

There is no charge, and all members of the University and local community are welcome. The reading

will be in French.

Profs. Stéphanie Nutting and François Paré, Languages and Literatures, are co-ordinating the Canada Council series, which will host three francophone writers at U of G, with additional performances at the University of Western Ontario and McMaster University. The next readings will be in October and November.

In the Feb. 10 performance, "East to West: Journey to India," Juteau will read against a backdrop of large

collages of Indian newspaper clippings designed by Trois-Rivières artist Jean-Pierre Gaudreau. The author of two novels and four collections of poetry, Juteau will use visual items and props to offset her dramatic presentation.

The reading will be complemented by classical Indian music performed by Potter on the bansuri, an Indian bamboo flute. A composer and arranger for film, theatre and dance, Potter has been studying with India's leading flutist since 1985.

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OAC's World of Work Program Draws Interest

Discussions about implementing similar programs under way at other universities

OAC'S WORLD OF WORK (WOW) skills development program is earning praise in high places.

The innovative program — the first in Canada to use a set of learning objectives in its overall design — has attracted attention from the Association of Universities and Colleges of Canada (AUCC), from major Canadian corporations and from leading academics.

A presentation to AUCC about the program last year and, more recently, at a meeting of the deans of agriculture and veterinary medicine from across Canada, evoked "a good deal of interest," says Andre Auger, director of the Counselling and Student Resource Centre, whose Career Services unit is responsible for delivering the WOW modules. And discussions about the implementation of similar programs are under way with other universities as well as with other colleges on campus.

Developed by Career Services, the OAC dean's office, the OAC Alumni Association and the B.Sc. (Agr.) program committee, the WOW program prepares students for the workplace by teaching them how to manage themselves and others, communicate effectively and use skills in the workplace.

"Our graduates need to be more accountable, and the World of Work modules provide students with the skills they need to be successful in the workplace," says OAC assistant dean Mike Jenkinson. "When the program launches its first graduates this spring, employers will be lined up."

The impetus for the program came from potential employers. Consultation showed that although OAC graduates were technically competent, they lacked some of the workplace and social skills needed for success in today's job market. The Royal Bank and GROWMARK, FS Seed and Agronomy, recognized the importance of experiential learning with a combined gift of \$25,000 to the WOW program in both 1997 and 1998. In fact, says Norm Jones, chief executive officer of GROWMARK, a primary incentive for funding the program was to develop good future employees.

"We found that the calibre of technical knowledge and skills of students developed through traditional curriculum is very high, but along with this curriculum, non-technical skills and aptitudes are also needed by students when they enter the work world."

George Arnold, the Royal Bank's senior adviser for agricultural and

agribusiness banking in Ontario, agrees.

"Not only must we have people with the technical knowledge, but also people with the right competencies such as information seeking, listening, analytical thinking, teamwork and action orientation, just to name a few," he says.

Numerous studies, including one by Prof. Fred Evers, Sociology and Anthropology, have found that employees able to think, communicate, manage time commitments and be open to lifelong learning are valued by employers. The experiential learning program was based on Evers's research.

"There shouldn't be more emphasis in higher education on general skill development because knowledge is changing very rapidly," he says. "What will hold up are learning and writing skills and how to solve problems and make decisions."

WOW modules are designed to identify and define the skills particularly demanded by employers. They are presented in various ways throughout the four years of the degree, not only by faculty but also by alumni, Career Services and industry representatives. Alumni and potential employers are fully involved in the program's component on job

shadowing, job placement, guest speaking, mentoring and assessment.

"We believe that employers and alumni provide the meat and potatoes, while the University provides the menu and table settings," says Auger. "Employers are looking for this stuff. We have to rethink how we position our students to be successful, and that's why I'm pushing hard to have people recognize the importance of experiential learning."

Corporate sponsorship is used to offset the cost of materials used in the WOW program and staff time devoted to the modules. Students re-

ceive a portfolio containing descriptions of the different module workshops and space for recording their specific accomplishments corresponding to the workshops. There are areas to document certificates, letters, articles and examples of the students' work that substantiate their claims to specific skills. It also includes a strong writing component and a numeracy companion to aid the students' skills progress.

BY MARGARET BOYD
OFFICE OF RESEARCH

LETTERS

THANKS FOR A JOB WELL DONE

I am writing to offer my personal thanks and that of the Executive Group to Ken Steer, Paul Cook, John Reinhart and their teams in Physical Resources for the terrific job they did in dealing with January's unprecedented snowfall.

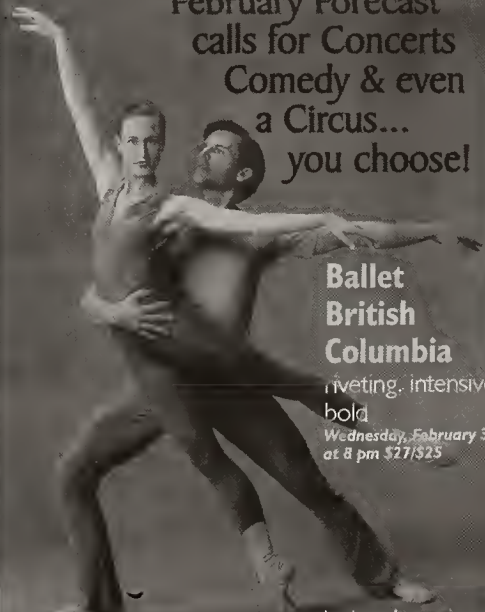
Roger Shantz of Research Station Operations also joined in the snow-clearing operation. It is this

type of co-operation across our University community that distinguishes us from other institutions.

It was thanks to the efforts of all these people and their staff, all of whom put in many long hours, that the University was able to continue its operations during and after the snowstorms.

President Mordechai Rozanski

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Going Global Enhances Teaching, Learning

Continued from page 1

study abroad and student exchanges. Gioux commends Guelph for its efforts to expand in these areas.

Shute hopes U of G will continue to be outward looking. CIP is working to spread the word that going global enhances teaching and learning. That's a notion promoted by Prof. Neal Stoskopf, Plant Agriculture, who began working to improve wheat yields in China in the early 1980s and has been back to the country 19 times. His efforts and those of his colleagues Profs. Rick Upfold and Ed Gamble encouraged the Chinese government to rethink its approach to marketing wheat and earned the trio prestigious Chinese Friendship Awards.

Stoskopf says a professor with international experience brings important observations and perspectives to a classroom. In turn, students may be encouraged to explore international offerings. "Some people may ask the question: 'What can one person or one team do?' Well, I think one person can do a lot."

Here are highlights of current U of G development international co-operation projects:

- **Cameroon:** U of G and the University of Dschang in Cameroon created a distance education program in agriculture. The program prides itself on providing rural Cameroonians something they previously lacked — opportunity for more education. It offers more than 20 courses ranging from growing coffee and cocoa to animal science, management and marketing. Certificates are offered in agricultural management, animal science and crop science.

- **Nicaragua:** Prof. Peter Kevan, Environmental Biology, teamed up

with students and faculty from Nicaragua and Michigan to develop a course in applied ecology for tropical rainforest recovery following disasters such as hurricanes.

- **Mexico:** Kevan was also involved in developing and teaching a bi-national course offered every second year to students from Mexico and Canada, including about 10 from U of G. Taught in both English and Spanish, the course focuses on the co-dependence of animals and plants. It involves intensive field work at a biological station in Mexico.

- **Honduras:** Prof. Sally Humphries, Sociology and Anthropology, is helping to train subsistence farmers in Honduras to conduct research into alternatives to chemical fertilizers. Twenty-nine farmer research teams have been formed in three regions of the country. This is the first time the country's agronomists have conducted community-directed research or worked with hillside farmers. Humphries and others are now providing courses on participatory research to university agronomy students. In a separate project, Prof. Pablo Colucci, Animal and Poultry Science, has just completed a project with the National Agricultural College in Honduras to strengthen its institutional training in animal agriculture and nutrition.

- **Thailand:** A special partnership between U of G and Khon Kaen University in Thailand has allowed students from both universities to expand their educational horizons. Called Golden Jubilee, the program was established in honour of the 50th year of reign of the King of Thailand. Ten Thai female undergraduates studied at Guelph, and 10 U of G students travelled to Thailand for summer work placements.

- **Nepal:** Prof. Andy Gordon, Environmental Biology, is involved in a Tier 1 CIDA project with Lakehead University to enhance resource management and conservation. This will be done by training Nepalese foresters and land managers in GIS, silviculture and agroforestry. Gordon is also involved in a new project that will focus on fostering awareness of the role of women in resource conservation issues in northern Ghana.

- **Ecuador and Mexico:** U of G is involved in a multidisciplinary, multi-university Tier 1 CIDA project with Trent University and the University of New Brunswick to rehabilitate degraded watershed areas in rural Ecuador and Mexico. The U of G project is headed by Prof. Richard Protz, Land Resource Science.

BY LORI BONA HUNT

Young Researchers Supported

THE SOCIAL Sciences and Humanities Research Council and International Development Research Centre have created a \$500,000 program of international development grants for young Canadian researchers.

Aimed at "new" scholars and

post-doctoral fellows supported by SSHRC, the program is designed to encourage young researchers to study emerging issues that will determine the future of relations between Canada and Asia and Latin America. Details are available on the Web at www.sshrc.ca.

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OLYMPIC USED CAR CENTRE HONDA

ARBORETUM

The Children's Trio offers a musical adaptation of *Rumpelstiltskin* Feb. 10 at 6:30 p.m. Tickets are \$5.

Theatre in the Trees presents the comedy *The Second Time Around* beginning Feb. 6 at the Arboretum Centre. Doors open at 6 p.m.; showtime is 8 p.m. Tickets are \$45 and are available at Ext. 4110.

ART CENTRE

Opening Feb. 11 at the Macdonald Stewart Art Centre is an exhibition of photography by Prof. Suzy Lake, Fine Art and Music. She will give an artist's talk at 4 p.m., to be followed by an opening reception. Continuing to July 25, the exhibition surveys Lake's work from the 1970s to 1990s.

ATHLETICS

The basketball Gryphons are at home to Windsor Feb. 3 at 6 p.m. (women's) and 8 p.m. (men's) and to Waterloo Feb. 13 at noon (women's) and 2 p.m. (men's).

The men's hockey team hosts Concordia Feb. 6 at 7:30 p.m. and the University of Quebec Feb. 7 at 2 p.m.

The volleyball Gryphons are at home to Western Feb. 6 at 1 p.m. (women's) and 3 p.m. (men's).

Guelph hosts the women's hockey OUA finals Feb. 12 to 14.

CONCERTS

The School of Fine Art and Music and the Macdonald Stewart Art Centre present a concert of Klezmer and Yiddish music Jan. 30 at 8 p.m. at the art centre. Tickets are \$10 and \$6.

The Thursdays at Noon concert series continues Feb. 4 with Andrew Klehn on saxophone and percussionist John Goddard and Feb. 11 with pianist Alma Petchersky. The concerts are in MacKinnon 107.

The U of G Chamber Singers and Women's Choir will perform Feb. 5 at 8 p.m. at Chalmers United Church to raise funds for their upcoming tour of the eastern United States. Tickets are \$10 and \$6.

CONFERENCE

The 18th annual Guelph Organic Conference runs Jan. 29 to 31 in the University Centre. The conference features workshops and seminars, a trade show and a public forum on "Is Organic Agriculture a Good Model for Global Food Production and Security?" Jan. 29 at 7 p.m. in Thornbrough 100.

LECTURES

Third Age Learning-Guelph's winter lecture series for retired people continues Feb. 3 with retired history professor Lew Abbott discussing "The Great Divide" at 10 a.m. and Peter Donnelly of the University of Toronto exploring "Ethical Issues in Sports" at 1:30 p.m. On Feb. 10, Abbott discusses "The Canadian Connection" at 10 a.m. and Prof. Jay Newman, Philosophy, considers "Ethical Issues in Journalism" at 1:30 p.m. Lectures are at the Arboretum Centre.

NOTICES

Nominations are sought for the 1999 Lewis Perinbam Award in International Development, which recognizes excellence and imaginative leadership in a social or economic

area pertaining to development in the Third World. Nomination deadline is Feb. 18. For more information, call 416-961-2376 or fax to 416-961-1096.

Subjects are being sought for a study on low back pain at the Health and Performance Centre. If you've been experiencing low back pain for more than a week but less than eight months and wish to participate, call Michele Preyde at Ext. 3278.

The Stress Management and High Performance Clinic offers a program to prevent repetitive strain at computer tasks. The first section of the program, an overview, runs Feb. 1 from 7 to 9 p.m. in UC 441. Cost is \$20 general, \$5 for U of G students. Pick up a registration form at the connection desk or call Ext. 2662.

Board of Governors is calling for nominations to elect a graduate student and two undergraduates to the board for a one-year term that begins July 1, 1999. Nominations are due Feb. 26 at 4:30 p.m. at the Board Secretariat office on UC Level 4. For more information, call Ext. 6571.

SEMINARS

The Department of Food Science presents Gunter Otto of Cara Foods Limited on "Airline Food Safety: A Managerial Perspective" Feb. 1 at 9:30 a.m. in Food Science 241.

The Department of Human Biology and Nutritional Sciences graduate seminar series continues with Richard Hughson of the University of Waterloo discussing "Testing the Hypothesis of O₂ Transport vs. O₂ Utilization in the Adaptation to Exercise" Feb. 1 at 3 p.m. in Animal Science and Nutrition 141.

The Department of Physics presents Prof. John Dutcher explaining "Thermal Instabilities in Thin Polymer Films: From Pattern Formation to Rupture" Feb. 2 and Gang Wu of Queen's University on "High-Resolution NMR of Quadrupolar Nuclei in the Solid State" Feb. 9. The seminars begin at 4 p.m. in MacNaughton 113.

The Department of Chemistry and Biochemistry presents Prof. Joseph Lam, Microbiology, discussing "Molecular Biology of the Exopolysaccharide Coats of *Pseudomonas aeruginosa*" Feb. 2 at 3:15 p.m. in MacNaughton 222.

The Centre for International Programs' "Our World" series focuses on U of G study opportunities in the developing world Feb. 3 and in Europe Feb. 10. The free two-hour sessions begin at 6:30 p.m. on Level 2 of Day Hall.

The biochemistry seminar presents graduate student Neil Puente discussing "Detection of Aromatic Amines, Possible Mammary Carcinogens, in Human Breast Milk" Feb. 4 at noon in MacNaughton 222.

The Department of Molecular Biology and Genetics presents Prof. Ann Gibbins, Animal and Poultry Science, examining "The Challenging Road to Transgenic Birds" Feb. 5 at noon in Axelrod 028.

TEACHING SUPPORT

Teaching Support Services (TSS) presents workshops on "Student Group Self-Evaluations" Feb. 4 at 10:30 a.m., "Student Peer Evaluation as an Assessment and Learning Tool" Feb. 8 at 10:30 a.m., "PowerPoint for Teaching" Feb. 8 at 10:30

a.m., "An Introduction to the World Wide Web" Feb. 9 at 10 a.m., "Design Basics for the Web" Feb. 10 at 10:30 a.m. and "The Web as Learning Assistant: The Basics and Beyond" Feb. 11 at 10 a.m. To register, call Helen Martin at Ext. 2973 or send e-mail to hmartin@tss.uoguelph.ca. For more details, visit the Web site www.tss.uoguelph.ca.

The TSS Friday forum series for teaching assistants continues Jan. 29 and Feb. 5 with discussions of "Presentations" and Feb. 12 with "Facilitating Student Learning with Style." For more information, visit the Web site www.tss.uoguelph.ca/Tagape.html.

THESIS DEFENCES

The final examination of M.Sc. candidate Janet Koyner, Human Biology and Nutritional Sciences, is Feb. 5 at 9 a.m. in Animal Science and Nutrition 141. The thesis is "Involvement of a Splenic Dendritic Cell Population in Weanling Malnutrition." The adviser is Prof. Bill Woodward.

The final examination of Zhuanfang Zhang, a PhD candidate in the Department of Land Resource Science, is Feb. 12 at 1 p.m. in Richards 038. The thesis is "Measuring Soil Hydraulic Properties and Stochastic Analysis of Water Movement Using Line Sources." The adviser is Prof. Gary Parkin.

The final examination of PhD candidate Robert Intine, Molecular Biology and Genetics, is Feb. 12 at 1 p.m. in OVC 1708. The thesis is "Structural Features of the 5'ETS in *Schizosaccharomyces pombe* Essential for Ribosomal RNA Maturation." His adviser is Prof. Ross Nazar.

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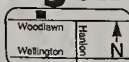
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IN THIS ISSUE

- 2 **PROVINCE** reopens matching-grants program for donations to student aid.
- 3 **UNIVERSITY** gears up for earlier admission offers.
- 5 **BIOLOGY** student has a game plan for success.
- 6 **HISTORY** professor Clarence Munford offers insights on the black reparations movement.
- 10 **KIDS FIGHTING?** Reaction depends on whether you're Mom or Dad.

Health Canada Supports Data Sharing

Pilot project will compare animal and health data

ANIMALS ARE IMPORTANT to humans as companions and as sources of food. But they can also be used as health sentinels, providing valuable information that can be used in human health surveillance. Recognizing the importance of being able to compare animal data with human data, Health Canada's Health Infrastructure Support Program (HISP) has awarded U of G's Laboratory Services \$375,000 to link animal health and food safety data to human health information.

"Sometimes health events occur in the animal population before they begin in the human population," says Beverly McEwen of Lab Services' Animal Health Laboratory, who is co-ordinating the project with Joseph Odumeru of the research co-ordination unit.

"Health Canada can use animal health data as sentinel information to determine if possible relationships exist between human health events and animals," she says. "In this way, animal-related data may be used as an early warning system."

The 18-month pilot project involves developing a software program that will help standardize data gathered at Health Canada and the

Continued on page 8

SITTING PRETTY



Prof. Jack Callaghan, Human Biology and Nutritional Sciences, says improper sitting habits can be hazardous to your health. But contrary to what they told you in grade school, his studies suggest that sitting up straight isn't necessarily what the doctor ordered. See story on page 9.

PHOTO BY DEAN PALMER/SCENARIO IMAGING

Three to Receive Honorary Degrees at Convocation

More than 630 students to graduate in four ceremonies in War Memorial Hall

THREE DISTINGUISHED scholars will receive honorary degrees from U of G during winter convocation ceremonies Feb. 17 and 18 in War Memorial Hall.

Noam Chomsky, a world-renowned linguist and cultural theorist who is Institute Professor in the Department of Linguistics and Philosophy at the Massachusetts Institute of Technology, will receive an honorary doctorate of letters Feb. 17 at 10 a.m. and will address graduates of the College of Arts and College of Physical and Engineering Science.

George Bain, president and vice-chancellor of the Queen's University of Belfast in Ireland, will receive an honorary doctorate of laws Feb. 17 at 2:30 p.m. and deliver the convocation address to graduates of the College of Social and Applied Human Sciences.

University of Waterloo earth scientist Robert Gillham will receive an honorary doctorate of science Feb. 18 at 2:30 p.m. and address graduates of the Ontario Agricultural Col-

lege and Ontario Veterinary College.

The ceremony for graduates of the College of Biological Science is Feb. 18 at 10 a.m. University professor emeritus Roy Anderson, retired chair of the Department of Zoology, will deliver the convocation address.

Chomsky has been credited with revolutionizing the field of linguistics by changing the focus from a concern with methods of classification to a search for explanatory principles. He has also been described as the exemplary public intellectual and oppositional thinker of our era. A PhD graduate of the University of Pennsylvania, he joined MIT in 1955 and is the author of more than 40 books. He has received numerous honours and awards, including the Kyoto Prize in Basic Science, the Distinguished Scientific Contribution Award from the American Psychological Association and the Lannan Literary Award for Non-Fiction.

While in Guelph, Chomsky will speak at a sold-out lecture Feb. 16 at

Chalmers United Church.

Bain is an international scholar in the fields of labour economics and industrial relations. A graduate of the University of Manitoba and Oxford University, he is the author or editor of 12 books and close to 40 research papers. An expert in industrial relations, he has been an arbitrator, conciliator and mediator in more than 70 industrial disputes, and has worked for the British government, Canadian governments, companies and trade unions.

Gillham is known for his inventions and research on groundwater cleanup technologies. He holds or co-holds several international patents related to this technology, which is recognized internationally as a strong candidate for the most important advancement in groundwater remediation in the past two decades.

He was named the 1998 NSERC/Motorola/EnvironMetal Technologies Inc. Industrial Research Chair in Groundwater Remediation.

Budget Impact Focus of Open Forum

Consultation on budget continues across campus

ABOUT 50 PEOPLE turned out Feb. 5 for an open forum to hear details of the initial assumptions related to U of G's 1999/2000 Ministry of Education and Training preliminary operating budget and to discuss solutions to a projected \$3.98-million remaining gap.

John Miles, assistant vice-president (finance), began his presentation by reminding the audience that U of G's provincial operating grant has been cut by more than \$26 million since 1992/93. He noted that 1999/2000 is the first year since then that U of G expects to see an increase in MET funding, but at best, it will be only one per cent or \$835,000. In 1992/93, government funding accounted for 70 per cent of U of G's MET operating budget; today, it is only 56 per cent.

Presenting the budget assumptions, Miles said that after adding the opening base deficit, projected expenditures (including provision for salaries) and investments in maintaining quality for students, there was a total projected problem of \$12.28 million. Of this, \$8.3 million was covered by new revenues and cost savings. This left a remaining shortfall of \$3.98 million.

Possible solutions to this shortfall include increased contributions from ancillary units, increased enrolment, increased tuition, year-end savings and budget adjustments ("clawbacks").

Prof. Alastair Summerlee, acting associate vice-president (academic) and chair of the Enrolment Management Committee (EMC), presented the principles EMC has drafted for recommendations on enrolment, tuition and financial aid. (Draft 7 of the principles, which formed the basis of Summerlee's discussion, is printed on page 4 of this issue. Draft 9 is available on the Web at www.uoguelph.ca/newswatch/budget/consult.html.)

These principles are currently being discussed across campus in a series of consultations with mem-

Continued on page 8



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Opportunity Knocks Twice

Province reopens matching-grants program for student financial aid

TWO YEARS AGO, universities and colleges across Ontario were focusing their fund-raising attention on the Ontario Student Opportunity Trust Fund (OSOTF), which offered matching provincial grants for donations and pledges to student financial aid. Many U of G staff, alumni and corporate friends rallied around the University's ACCESS campaign and helped it realize more than \$14.7 million in pledges before the OSOTF window closed March 31, 1997.

But like other universities, U of G has experienced a shortfall in the amount of money actually received from ACCESS pledges. As a result, matching provincial grants will also fall short of the expected figure.

In response, the Ontario government has reopened OSOTF to allow universities to bring giving totals up to the pledged amounts.

"This is a special opportunity for universities to maintain full benefits from the provincial program," says Rudy Putns, U of G's executive director of campaign programs, "but it is a short-term offer that ends March 31, 1999."

What this means to U of G is that new gifts made to the University's ACCESS Fund before the end of March will also be matched by the provincial government. To students, it can mean the difference between earning a degree to build a future or building a debt to earn a degree.

Finances are one topic that third-year student Craig Jackson says he and his classmates talk about often. "It creates stress for almost everyone I know, and ACCESS has definitely made a difference to many," he says. "I say this because

around the time scholarships were due to be announced, many students were excited, yet fearful, about their ACCESS applications because the money was so desperately needed."

Second-year student Lisa Flynn says she felt some of that trepidation before receiving a \$750 ACCESS bursary just after Christmas. "It may be the only thing that has kept me in school," she says.

She transferred to Guelph from Carleton because she believed U of G offered a better opportunity to combine her interests in international development and science. Flynn says it was the ACCESS bursary that enabled her to pay her tuition fees.



Jackson, an agricultural economics and business student, received a scholarship last fall sponsored by the OAC Class of 1955, and on Jan. 29 had the opportunity to personally thank class representative Don Grieve for the support his class has given to ACCESS and other scholarship programs. The handshake took place at the launch of OAC's 125th-anniversary celebrations, which included a recognition of donors to the college ACCESS fund.

"The scholarship award was extremely important to my education," says Jackson. "It means I still have time to participate in extracurricular activities, and I think that's a vital part of my education."

Flynn received a bursary funded

through undesignated ACCESS donations, and she thinks donors should be proud of having supported such an important effort.

"I'm a big ACCESS fan," she says. "The endowment fund is a great way for the community to support students, and it's also incredibly necessary. It's difficult to work 30 hours a week and still go to school. These bursaries are well earned. They aren't just handed out on a whim. There's a reason why students get them: their marks are good and they need the financial assistance."

Flynn applied for an ACCESS bursary after Prof. Brian Husband, Botany, mentioned it in one of her classes. "He put up an overhead that told us all about the ACCESS program and how to apply."

She has since learned much more about ACCESS. As a caller for U of G's telephone fund-raising program, she will be making calls to parents and donors this month to tell them about this new opportunity to double the value of their gifts to U of G's scholarship endowment.

With ACCESS support, U of G's annual expenditures in student financial assistance have jumped to more than \$6 million. Although Guelph students are already benefiting from ACCESS awards, even more can be helped, says Putns. New donations made to the ACCESS Fund by March 31 will ensure that U of G students receive full advantage from the provincial matching-grants program. Send a cheque directly to ACCESS, c/o Development and Public Affairs, Alumni House, or call Lynn Verspagen at Ext. 6691 for more information.

BY MARY DICKIESON

Faculty to Provide Input on New High School Curriculum

Radical changes will have impact on universities

FACULTY AT ONTARIO universities are getting a chance to comment on and influence the province's new high school curriculum, which is being changed radically to accommodate elimination of the OAC year.

Because the changes will affect universities, the Council of Ontario Universities had urged the Ministry of Education and Training (MET) to give universities a chance to comment on the curriculum, particularly at the Grade 12 level, says provost Iain Campbell. In response to that

pressure, MET has established a process whereby universities will validate the Grade 12 courses that are intended to prepare students for university-level studies.

The draft curriculum has just been released, and universities will have only three or four months to comment on it before final revisions are made and approved at the end of the summer, says Campbell.

Brenda Whiteside, academic assistant to the provost, is coordinating U of G's curriculum review process. The University has

struck three curriculum committees in the sciences, social sciences and arts to review the draft curriculum and decide how best to provide input to the province.

Members of the academic community are also being solicited to sit on provincial curriculum committees, which will be responsible for receiving comments from universities and revising the curriculum as appropriate.

Anyone wishing to receive a copy of the draft curriculum can call Whiteside at Ext. 4124.

@GUELPH

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MAPLE SYRUP DAYS RUN AT ARBOREUM

The Arboretum's annual Maple Syrup Days kick off Feb. 27 and 28 and run weekends until March 20 and 21 (March 27 and 28 if weather permits). The program also runs daily March 15 to 19 during March Break and includes puppet shows, displays and guided tours of the sugar bush. Hours are 10:30 a.m. to 4:30 p.m. Cost is \$3.50 for adults, \$2.50 for children 12 and under, and \$18 for a group of two adults and six children.

COLLOQUIUM HONOURS U OF G PHOTOGRAPHER

The Macdonald Stewart Art Centre, the Centre for Cultural Studies and the School of Fine Art and Music present a colloquium on "Art Practice and Social Change" Feb. 11 to March 9 as a tribute to Prof. Suzy Lake, Fine Art and Music. Through talks and workshops, the colloquium will develop some of the interdisciplinary connections and political motives of Lake's work. Speakers include Salteaux artist Robert Houle exploring "Sovereignty over Subjectivity" Feb. 22 at 7 p.m. in Room 114 of the MacKinnon Building and artists Carol Condé and Karl Beveridge on "Negotiating Art" Feb. 24 at the art centre.

JOB FAIR DRAWS A CROWD

About 3,000 students and alumni from U of G, the University of Waterloo, Wilfrid Laurier University and Conestoga College turned out for the annual job fair sponsored by the four institutions Feb. 3 at Bingemans Conference Centre in Kitchener. More than 130 employers were on hand to meet the participants.

KEMPTVILLE HOSTS WINEGARD LECTURE

An expert on dairy cattle nutrition will give a lecture on corn silage feeding strategies for dairy cows at Kemptville College Feb. 16. Randy Shaver, an associate professor and extension dairy nutritionist at the University of Wisconsin-Madison, will speak in the WB George Centre at 1 p.m. as part of the Winegard Visiting Professorship program being held in OAC this year as part of its 125th anniversary celebrations.

PROJECT VISION SEEKS CAMPUS PARTICIPANTS

The Human Rights and Equity Office is interested in speaking with lesbian, gay, bisexual and transgendered (lgb/t) people who would be interested in being interviewed about their experiences at U of G. lgb/t women, people of colour and people with disabilities are encouraged to get involved. The goal is to provide Project Vision with recommendations for improving campus life. Inquiries and participation will be kept confidential. For more details, call Celina Sousa at Ext. 6100.

University Gears Up for Earlier Admission Offers

Change will allow Ontario universities to be more competitive

STUDENTS ARE ONLY partway through the winter semester, but registrar Chuck Cunningham is already thinking about the first-year entrants who will enrol next fall. The September arrivals are also occupying the minds of other U of G administrators, from liaison officers to housing and hospitality staffers preparing for the effects of what Cunningham calls the biggest single change in Ontario university admission procedures to occur in years.

This year, universities can send offers of admission to secondary school students starting in late February, a full three months earlier than the traditional launch of the university admission process.

The change follows recommendations last year from a task force struck by the Council of Ontario Universities. That group, which included university presidents and registrars, Ministry of Education and Training officials, and high school principals and guidance counsellors, was seeking solutions to a problem that had been growing year by year.

In one of the few jurisdictions in North America that still waited until June to mail out admission offers, Ontario universities were concerned about losing students to institutions elsewhere in Canada and abroad. Noting that some out-of-province admission offers routinely reach Ontario students by March or even February, Cunningham says the change allows Ontario universities to be more competitive with other Canadian and international institutions.

U of G was quick to redesign its own admission process to reflect the change, with the Enrolment Management Committee (EMC) working out strategy with deans and directors. Last fall, liaison and recruitment staff set out to explain the new admission regimen in high schools across the country. By November, provost Prof. Iain

Campbell, EMC chair Prof. Alastair Summerlee, acting associate vice-president (academic), and the deans had agreed on preliminary admission targets.

Late last year, EMC convened a workshop to update affected units — staff in liaison and recruitment; deans, directors and academic advisers in colleges and departments; service departments such as Student Housing, Hospitality and Student Health Services — and to give them a head start on planning for this year.

Cunningham says students will have more time after receiving their offer of admission to consider their choices and make financial plans, including applying for financial aid. That means universities will have to work harder at ensuring students and parents get all the information they need.

"The kinds of questions that students ask will be different," he says. "They'll look at their courses in different ways. I think they'll be more informed when they make their decision."

It also means some universities that plan to begin mailing out admission offers later this month will make those decisions based on less information about applicants' OAC performance (many students will have completed only three OAC credits by then, although most will have completed more). To compensate, some universities — although not Guelph — plan to look at the performance of applicants in earlier grades.

"We will be looking at OAC grades only this year," says Starr Ellis, associate registrar (admission services). "Many other universities will be looking at Grade 11 and 12 marks in some way in making their decision. We decided not to do that this year. We heard loudly and clearly from students and counsellors that that would not be fair."

Summerlee notes that U of G has worked closely with high school

guidance counsellors and has earned praise not only for consulting with them, but also for listening to their concerns about Grade 11 and 12 performance. "That willingness is likely to influence the attitudes of counsellors toward Guelph," he says.

Cunningham stresses that all admission offers will be conditional on students completing their high school studies, on attaining a final average of at least 70 per cent (an increase from past years) and on finishing all their required courses.

Adds Summerlee: "Applicants this year know what our cutoff averages are, and we expect to see students applying realistically."

Ellis anticipates that most of Guelph's offers of admission will be mailed in February or March, earlier than many other institutions. "We've been a lot more aggressive than other universities," she says. "The process has gone well. The deans and the Vice-President Academic's Council were involved and supportive."

Guelph will use a two-phase admission process this year. Beginning this month, the University will mail offers to applicants based on at least three final or interim OAC grades. "We expect that the majority of students will offer more than three OACs," says Summerlee. The remainder of the offers will be mailed in May, based on additional OAC grades and information to be provided by applicants on student profile forms.

Although Ontario universities may hold off on sending out their admission offers until May, Cunningham believes that most will do their mail-outs by March or April. Even if a university waits until May, students will still receive their offers a full month earlier than in past years. And they must accept or decline by June 1, also a month earlier than usual.

"It's going to be an exciting few months," says Cunningham.

BY ANDREW VOWLES

Colleague Web Site Launched

Information about training schedule will be part of regular updates

A NEW WEB SITE was launched last week to keep the University community informed about the implementation of Colleague, U of G's new student information system.

Located at www.uoguelph.ca/colleague, the Web site is designed to give faculty, staff and students the information they need as implementation proceeds, says Brenda Whiteside, academic assistant to the provost, who is managing the communication process.

Colleague is being implemented in stages based on U of G's annual academic cycle of events from admissions to registration. In late January, the University officially

switched over to the new system for admissions and will be used to make offers of admission and scholarships later this month. Full implementation in all areas is scheduled for this May.

Campus-wide training and access to Colleague will also be provided in stages, says Whiteside. The Colleague management team is currently developing a timetable for getting the system software and training out to users on a priority-needed basis, she says. "It won't be coming to everyone at the same speed — it will be coming as you need it."

Information about the training schedule will be part of the regular

updates to be posted on the Colleague Web site, says Whiteside. The site also outlines the objectives of Colleague, the implementation process and the structure of the Colleague management team. And it includes a list of key people to contact by phone or e-mail if you have questions or issues you need to discuss. Questions submitted to Whiteside or project manager Brian Pettigrew will be addressed on the Web.

Whiteside notes that the management team is also creating distribution lists to send e-mail messages to people across campus when new information is added to the Colleague Web page.

PEOPLE

PROGRAM RENAMED TO HONOUR FOUNDER

Ken Murray, former chair of Board of Governors, a graduate of OAC and an honorary degree recipient of U of G, was honoured recently by the University of Waterloo. The Alzheimer research and education program that Murray founded at Waterloo in 1993 was renamed in his honour. The program transfers the latest knowledge of Alzheimer's disease from research to practice.

B.S.C. STUDENT WINS ROTARY INTERNATIONAL SCHOLARSHIP

Praseedha Janakiram of Guelph, a fourth-semester biological science student, has been awarded a Rotary International Ambassadorial Scholarship for a year of study at Edith Cowan University in Perth, Australia. Valued at \$23,000 US, the scholarship is designed to promote international understanding, with recipients serving as ambassadors of goodwill. Janakiram, a President's Scholar, will begin her studies in Australia in late summer.

CONSERVATION AUTHORITY HONOURS UNIVERSITY

Members of the University community were among those honoured at the annual awards ceremony of the Grand River Conservation Authority (GRCA). The Marcel Pequegnat Scholarship was awarded to Tricia Radburn, a fourth-year environmental science and geography student. A GRCA certificate of appreciation was presented to the U of G Grand River Watershed Management Plan for Purple Loosetrife. The award was accepted by Jim Corrigan and Donna MacKenzie of the Department of Environmental Biology.

STUDENT PAPER WINS NATIONAL TOURISM AWARD

David Classen, a student in HAF's master of management studies program, received the 1998 Gordon Taylor Student Tourism Research Award from the Tourism and Travel Research Association. He was honoured for his paper "Not in My Backyard: Toronto Resident Attitudes Towards Permanent Charity Gaming Clubs," which he presented at the association's annual meeting in Toronto.

BIOMEDICAL SCIENCE RESEARCH EARNS KUDOS

Four OVC biomedical science students were among six finalists recognized for excellence in student research presentations at the International Embryo Transfer Society's annual meeting in Quebec City. Christie Matwee captured first place for her project on "Developmental Regulation of Apoptosis in the Early Bovine Embryo." Dean Betts came second for his work on "Telomerase Activity in Bovine Blastocysts, Fetal Fibroblast and Stem Cell-Like Cell Lines Cultured Under Various Conditions." Also among the finalists were Harpreet Kochhar and Leesa Gillies. The students' adviser was Prof. Allan King.

EMC Principles on Enrolment, Tuition, Financial Aid

Introduction

The Enrolment Management Committee (EMC) has established a set of principles about the total costs for students attending U of G, including tuition fees. The committee has also established principles on enrolment and student financial support to guide decisions on recommendations to Board of Governors in March.

EMC recognizes the need for fiscal responsibility for the University, especially in light of the severe underfunding of universities in this province, but also recognizes that the increasing costs of higher education place considerable strain on students. For this reason, the committee has developed a strategy that recognizes the total cost of coming to university for students. It is critical for the institution to remain competitive in attracting

high-quality students and that enrolment is balanced across programs. The committee is also committed to enrolment practices that continue to draw people from a balance and diversity of socioeconomic backgrounds. Finally, the committee recognizes that the quality of the overall educational experience that students receive is vital. Financing this quality experience is a very considerable challenge in the current fiscal climate and will necessitate managing resources carefully.

As part of the two-year budget announcement by the provincial government in December 1997, universities were allowed tuition fee increases of 10 per cent in each of two years and allowed to deregulate and differentiate fees in some programs. A set-aside of 30 per cent of increased tuition revenue is also to be allocated to financial aid. Guelph did not implement the full tuition increase for 1998/99. The University also chose

not to deregulate or differentiate fees further for 1998/99. A 7.5-per-cent increase in undergraduate fees, zero-per-cent increase in graduate fees and a substantial reduction in international undergraduate tuition fees were implemented. To meet the budgetary needs and to address long-term structural concerns, the University increased semester-one registrations for fall 1998 and suggested that this increased level of admission be maintained for the foreseeable future. Finally, the University implemented a comprehensive approach to the delivery of financial aid for students (excluding loan service).

To guide the committee in developing an overall approach to fees and support of students at Guelph, EMC proposes the following principles. (This is Draft 7 of the principles; Draft 9 is available on the Web at www.uoguelph.ca/newswatch/budget/consult.html.)

A. Costs of Attending University

Guelph is a residentially intensive university. For the majority of new undergraduates and for many returning students, the total costs of residence, meals and tuition, as well as non-compulsory ancillary fees such as athletics and student services support, are very important.

Principle

Residence, meal plans and ancillary fees

- That, where possible, any proposed increase in charges should not exceed those required to meet increases in inflationary costs, safety and maintenance of the current level of services.

B. Enrolment

The University has increased undergraduate intake since 1996. In fall 1998, the intake was just over 3,000 undergraduates. Although this is still not as high as the intake in the early '90s, there have been substantial budget reductions since that time and some undergraduate courses in particular programs are considered to be at capacity in the fall and winter. The committee also recognizes that total enrolment will, over the next few years, move to slightly less than all-time highs experienced in the early '90s. The committee recognizes that there is considerable potential for increased course enrolment in the spring semester and there may be increased capacity for courses offered by distance education throughout the year.

Several graduate programs have indicated a capacity to increase enrolment, and EMC is keen to promote increased graduate enrolment where possible.

Principles

Undergraduate intake

- That U of G maintain undergraduate semester-one enrolment at the present elevated level for fall 1999.
 - That the University encourage admission of external transfer students, particularly at more senior levels, where there is availability of spaces in programs and courses.
 - That the University continue to admit a small number of new semester-one students in the winter and spring semesters based on availability of spaces in programs.
 - That enrolment targets be accomplished with no additional resources.
- #### Undergraduate international intake
- That the University continue with

its strategic plan to increase international enrolment.

Spring '99

- Guided by the report on the spring semester and the spring semester survey, that the University should continue to increase the number of courses, especially those offered in areas of strategic importance to the University.

Graduate intake

- That the University endeavour to increase graduate intake in 1999/2000.

Graduate international intake

- That the University continue with its strategic plan to increase international graduate enrolment.

C. Tuition Fees

Deregulation

In 1997, the government deregulated all graduate programs, which allows universities to set the fee level in these programs. In theory, the tuition fee could be increased or decreased. The government also allowed universities to deregulate fees in professional undergraduate programs; universities may move towards full-cost recovery at 20 per cent per year for a five-year period. Effectively, deregulation could be viewed as a more extensive form of differentiation of the fees.

Principle

- That U of G not pursue deregulation for 1999/2000 of any existing undergraduate or graduate program.

Differentiation

Currently, there are three programs with differentiated fees at the undergraduate level — B.Sc.(Eng.), B.A. and DVM — and one at the graduate level, the executive MBA.

Principles

Undergraduate programs

- That the University not seek, for 1999/2000, either to increase the number of undergraduate programs with a differentiated fee or to increase the level of differentiation.

Graduate programs

- That the University not introduce graduate programs with a differentiated tuition fee based on the program of study for 1999/2000, except the executive MBA in agriculture, which had a differentiated fee approved by Senate.

EMC will continue to investigate the rationale for differentiation of undergraduate and graduate program fees during 1999/2000.

International student tuition fees

The two-year changes in the in-

ternational undergraduate tuition fees last year will position the fees at Guelph in a reasonably competitive position, with the exception of some universities in the west that have eliminated differential international fees. This tuition fee policy has already had a positive impact on recruitment of international undergraduate students. Accompanied by aggressive targeted marketing, there was a significant increase in new semester-one international student enrolment at the University in 1998/99. International undergraduate tuition fees in 1999/2000 will be similar to those of major competitors in Ontario and Quebec and only marginally higher than fees in the Maritimes and Alberta.

For the last two years, Guelph has frozen international graduate tuition fees. The fees are almost the lowest in Ontario and are competitive with those of several competitor universities elsewhere in Canada. This policy has stopped the dramatic decline in international graduate enrolment seen over the last several years, and there was a small increase in international graduate enrolment in 1998/99 for the first time in 10 years. There is evidence that several universities in Ontario will be increasing graduate international fees for the coming year.

Principles

Undergraduate programs

- That the University continue with the second year of the two-year plan accepted in 1998 to reduce undergraduate tuition fees for international students.

Graduate programs

- That the University limit any increase in international graduate tuition fees to the percentage applied to the domestic graduate tuition fee.

Domestic student tuition fees

Currently, undergraduate tuition fees are marginally lower than the average level in Ontario, whereas the graduate fees are among the highest in Ontario. The graduate tuition fees are considerably higher than those at competitor institutions in the east and west. There is concern about the level of the graduate student fee at a time when the University is endeavouring to increase graduate enrolment. Any increase in fees would be subject to a 30-per-cent set-aside for student aid. This is a condition mandated by the provincial government.

Principles

Undergraduate programs

- That, if at all possible, the University should not increase undergradi-

ate domestic tuition fees to the maximum rate allowable (10 per cent). EMC recognizes, however, that with a limited number of options available to increase enrolment or decrease costs, this may be very difficult to achieve.

Graduate programs

- That the University limit any increase in graduate tuition fees to no more than five per cent.

D. Financial Aid

Guelph is committed to accessibility to quality education and therefore has a comprehensive approach to financial aid for entering and continuing students. In 1998/99, approximately \$7.5 million was available in financial aid for students. Just over half of this money (51 per cent) was distributed on the basis that the recipient had demonstrated financial need, and 42 per cent of the awards were allocated to entering students. There is a need to consider balance between entrance and continuing, and between merit and needs-based awards.

Principles

Financial aid for students

- That the University continue to expand its comprehensive approach towards financial aid for students. Attention should be paid to approaches that promote accessibility and reduce debt load for students.

Scholarship support for undergraduate students

- That the University support additional merit-based scholarships for undergraduate students that would be used as entrance awards to attract high-calibre students.

E. Revenue Generation

At Guelph, undergraduate and graduate students pay by cheque or post-dated cheque without additional handling charges and pay fees in instalments by semester. In addition, Guelph has a refund schedule that is more generous than that of some universities. In these ways, Guelph forgoes significant revenue in contrast to other universities. It is possible that additional revenue could be brought to the institution by adjusting payment schedules, but the committee recognizes there are many issues, including perception of fairness and the competitive position of Guelph, that may affect decisions on additional revenue generation in this way.

Principle

Payment/refund schedules

- That the University consider

whether changing the payment/refund schedules would be a more appropriate way to manage tuition payment, while also raising additional revenue for the institution.

F. Strategic Directions for the University to Consider

The University should consider two separate strategic issues that relate to recruitment and enrolment. The first concerns the structure of the graduate student fee and the second concerns the need to develop niche programs that could be used either to maintain or enhance enrolment at the University.

Graduate tuition fee structure

Graduate students and faculty have expressed concern about the graduate program fee structure; it does not recognize differences in workload from one semester to another, and there are problems in defining part-time studies in some programs. It is recognized that any change in the tuition fee structure may have academic implications and that there would have to be a considerable amount of consultation on any prospective change.

Principle

Graduate program fee structure

- That the University review the options for increasing transparency for tuition fees for graduate programs.

Niche programs at Guelph

To maximize enrolment in the medium term and to sustain enrolment in the longer term, EMC promotes the development of niche or unique programs at the undergraduate and graduate levels. It recognizes that such programs might replace existing programs, but they could also be in addition to existing programs where any capacity exists. Adding new niche programs and courses will be part of the overall strategy developed by the institution to deal with the effects of the double cohort and increased enrolments that will occur from the projected increase in the number of students in post-secondary education over the next 10 years. Examples of niche programs under consideration include the arts and science baccalaureate, articulation programs with community colleges and specific programs at the graduate level.

Principle

Niche programs at Guelph

- That the University consider ways to foster development of niche programs, especially those that seek to increase revenue to the institution.

Game for Success

Biology student is bound for Rome after winning strategy game on World Wide Web

HIS SECOND-YEAR biology classmates call him Matt. To fellow computer gamers, he's known — at least virtually — as Maimin' Matty. Now, following his world-beating performance in a computer game contest held late last year on the World Wide Web, the U of G student's new title is Grand Emperor.

In a series of weekend matchups involving some 300 North American contestants linked over the Internet, Matt Scadding snatched the laurel wreath from defeat on his way to the championship round of the computer game *The Rise of Rome*, held in Seattle in December. There he bested three fellow finalists to win an open-ended ticket to Rome this spring, along with \$2,000 US in spending money.

"And I thought video games were a waste of time," says Scadding's father, U of G zoology professor Steven Scadding. "I guess I was wrong."

Microsoft Inc. sponsored the contest to promote *The Rise of Rome*, an expansion package added last year to its already popular stable of Web-based strategy games collectively called "Age of Empires." Downloaded from the Internet, these games require players to assemble whole civilizations from scratch while fending off the slings and arrows of their virtual opponents. "Some people have described it as a very complex game of scissors-paper-rock," says Matt Scadding.

Based loosely on historical events and people — players can re-create the campaign of Augustus Caesar against Marc Antony and Cleopatra or Hannibal's crossing of the Alps — the new package pits up to eight people at once in a battle for domination of the Roman Empire. Concentration is key, says Scadding. So

are good hand-eye co-ordination and the ability to keep track of numerous tasks. "It's like the board game *Risk*, but everything happens simultaneously."

Scadding had played other "Age of Empires" games for a year before the contest. Figuring he had a strong shot at the title — he had been ranked number one among 3,000 players worldwide before "Age of Empires" added its expansion package — he couldn't believe it when he was eliminated from the contest after losing the semi-final round in November. Then came a reprieve — his victor dropped out of the competition, forcing a replay of the round. This time, Scadding won the right to advance to the final competition against three other finalists, all students at U.S. universities.

Flown to Seattle in early December, he battled it out with his foes in best-of-three rounds over the weekend before some 250 spectators in Microsoft's game centre.

There, Scadding nearly saw history repeat itself. "I lost my first game. After making it there, it looked like I would lose in the first rounds." By the time he faced his final opponent, however, he had little doubt. "I fairly soundly whupped him."

Currently enrolled in biology, Matt is considering a career in research. But based on a hot tip he got in Seattle, he's taking two introductory computing science courses this semester.

"Microsoft asked me whether I was going into computing science. I mentioned the plant biology thing, and they suggested I should switch majors."

Apparently, even the Grand Emperor bows to latter-day world conqueror Bill Gates.

BY ANDREW VOWLES



Matt Scadding, left, shows his dad, Steven, that video games can pay off.

PHOTO BY DEAN PALMER/SCENARIO IMAGING

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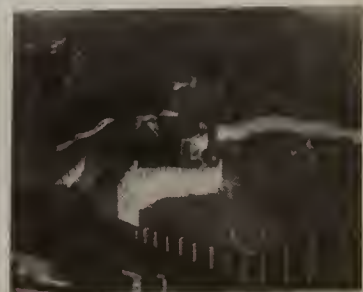
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'I HAVE A DREAM'

"The only way to acquire entrance to the future and build a social foundation that will enable us to enjoy the political and legal rights we have won is to initiate some form of reparations."

Editor's note: February is Black History Month, a time to reflect on the history, teachings and achievements of African-Americans. Writer Mary Dickieson recently sat down with Prof. Clarence Munford, History, to discuss issues vital to African-Americans today. Munford, a faculty member at Guelph for 33 years, is the author of numerous publications, including a three-volume history of black enslavement in the French West Indies and the 1996 book *Race and Reparations: A Black Perspective for the 21st Century*. A companion book to *Race and Reparations* is scheduled for publication in 2000. In 1995, Munford was honoured when U of G students opened the Munford Centre on campus to provide a focal point for anti-racism and race relations resources and a drop-in centre for students.



FOR MILLIONS OF PEOPLE around the world, the postwar civil rights movement in the United States is defined by the passionate words of Martin Luther King: "I have a dream that one day this nation will rise up and live out the true meaning of its creed — we hold these truths to be self-evident that all men are created equal."

King spoke those words in 1963 at the end of a day of peaceful demonstrations in Washington, D.C. The March for Jobs and Freedom drew 250,000 people in support of pending civil-rights legislation, but it was another full year before the Civil Rights Act legally ended segregation and two years before the Voting Rights Act made it possible for all black Americans to register to vote. Five years after sharing his dream of brotherhood between whites and blacks, King was assassinated while still working to make those legislated rights a reality in every part of the United States.

During the annual celebration of King's January birthday, U of G history professor Clarence Munford spoke at Toronto's Metro Hall and shared his own dream for the 21st century. "It is time to update King's speech and the content of his dream," says Munford.

"Martin Luther King led a vital struggle against petty apartheid North American style — school segregation, equal access to public facilities, voting rights and access and prompt service in restaurants. But one generation after his assassination, the formal access to public facilities can no longer be the target of black communal effort — nor should it be. We now have that access, at least in legislation. Today we are not seeking equality. Now we seek parity."

Munford works with a U.S.-based organization called N'COBRA, the National Coalition of Blacks for Reparations in America, which is trying to provide African-Americans with an economic and social foundation that will protect the anti-discrimination legislation and make it possible for blacks to benefit fully from political participation. N'COBRA is focused on a new "social advantage" movement. "We think we must mobilize blacks to make a commitment to reparations — payment of the inheritance due to us for the labour of our ancestors," he says.

The professor has more than a historian's interest in the institution of slavery. Born and raised in Ohio, Munford traces his mother's ancestors to the plantations of Louisiana and his father's family to enslavement in Alabama. He has lived in Can-

ada since 1966, however, joining U of G after completing an academic trail that began at Cleveland's Western Reserve University, then took him to the University of Leipzig in Germany for a PhD, then to the University of Nigeria as a faculty member.

During his years at Guelph, Munford has maintained close connections to family members in the United States and an active involvement in the ongoing civil rights struggles of blacks in many countries.

On the international scene, Munford is an active participant, with other historians, legal scholars, social scientists and psychologists, in the preparation of legislative recommendations and a legal brief in regards to U.S. Bill HR 40. Introduced by Detroit congressman John Conyers Jr., the bill would acknowledge the fundamental injustice of slavery in the United States and create a commission to examine the resulting economic and racial discrimination against African-Americans and the impact of these forces on those still living in the United States. The commission would also make recommendations to Congress on appropriate remedies, which N'COBRA economists say should include reparations as high as \$10 trillion US.

The following are excerpts from the interview with Munford, in which he talks about the basis of the black reparations movement and his belief that it is time for western civilization to pay the debt owed to African-Americans.

"In modern history, which for black people begins in 1441, we lost 100 million lives through violence inflicted by the slave trade. Thousands more were taken from their homes to enslavement in the western hemisphere, where they and succeeding generations worked their entire lives without payment for that work. What would be owed to us, using the true capitalist principle of the right of inheritance?

"The value of the accrued wages of Africans enslaved in the United States, plus interest, has been estimated at anywhere from \$5 trillion to \$10 trillion US. This debt does not count the other billions of dollars that may have been lost to blacks in the last 130 years through segregation and reduced job opportunities due to racial discrimination. Nor does it count the additional debts owed to the descendants of slavery in other countries — the West Indies, for example, where thousands were enslaved.

"One example of the impact of racial discrimination lies in the 10-to-one ratio between the home ownership assets of

whites and blacks in the United States. The average equity in home real estate is \$42,000 for whites and just over \$4,000 for blacks. A contributing factor to this discrimination was the U.S. government's post-war policy that offered low-cost mortgages to whites to enable them to move from the inner cities to the suburbs, while those mortgages were denied blacks. Yet black people in the United States helped pay for those government subsidies through their taxes. We helped pay for the better schools built in the suburbs and the better teaching and resources enjoyed by white children.

"We feel the only way to acquire entrance to the future and build a social foundation that will enable us to enjoy the political and legal rights we have won is to initiate some form of reparations. It's time for western governments to ante up.

"We promote a massive fund for black education that will raise the educational level of black children to that of the white middle class.

"Since the Depression, black unemployment has averaged two to 2½ times the unemployment rate among whites. Reparations will help equalize employment opportunities through education and black ownership of meaningful black assets. "Part of the dream is access to credit to encourage black ownership of business ventures. We want 15 to 20 per cent of the black labour force to be able to find a job and build a career in a black-owned business. Currently, less than one per cent of the black labour force in the United States works for black-owned firms.

"Supporters of the reparations movement do not expect overnight success — Bill HR 40 has been voted down each year for nearly a decade — but we see this as a crisis that western civilization must address.

"Reparations would not be paid by individual white people, but by western governments, which have already set a precedent of using reparations to achieve some atonement for the atrocities of past governments. Some European countries have made reparations to the survivors of the five-year Jewish Holocaust. Both the United States and Canada have given an apology and payments to Japanese citizens who were interned during the Second World War, and both countries have provided compensation to native populations who were robbed of their land and their culture. But African-Americans have a 500-year-old debt that remains unpaid.

"The reparations movement is a worldwide movement. There is a reparations office in Nigeria, and the Organization of African Unity has gone on record as supporting reparation. There is a Pan-African movement, and voices are chiming in from Brazil. In Canada, there is growing interest among the country's predominantly African-Caribbean black community.

"The discussion surrounding reparations is different in every country where the black descendants of slaves live. The issue is far too complicated for an adequate representation here, but at its core is the belief among black people that our ancestors' debts are yet to be collected. And that payment of those debts would provide the resources needed to prepare African-Americans today for the demands of the future."

For more information on N'COBRA, visit the organization's Web site at www.ncobra.com. For information about Black History Month activities at U of G, call Ext. 2629.

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WAVE OF THE FUTURE

Physics prof searches for elusive gravitational waves that could offer new view of the universe

BY ANDREW VOWLES

ZIP TO OTHER UNIVERSES through black holes? Not so fast, says Prof. Eric Poisson, Physics, whose earlier theoretical work probably crushed the dreams of a few sci-fi enthusiasts who had seen black holes as a kind of express elevator to new universes. Still, he may redeem himself among futurists through his studies of an elusive form of cosmic radiation, one that won't open the door to new universes, but that holds out a new way of seeing our own.

By the time Poisson began studying black holes in 1988 for his PhD at the University of Alberta, these structures had long enthralled sci-fi fans as a possible gateway to other universes. Not the simplest kinds of black holes — most scientists agreed that anything or anyone that entered an inert and uncharged black hole would be crushed — but the more complicated structures such as ones carrying a net charge or rotating in space, in which the physics got more murky. Without strong evidence to the contrary, people believed there was a possibility of going through black holes and ending up in a new universe, Poisson says.

Along with his supervisor, Werner Israel, and a small planet's worth of calculations, Poisson showed that although a perfectly spherical opening would work, you couldn't get near it without perturbing the black hole and causing the "tunnel" to collapse. In work reported last year, another pair of physicists at the Hebrew University in Jerusalem removed many assumptions and simplifications in the Poisson-Israel model and came up with the same result. Hard luck for anyone hoping to escape this humdrum universe, says Poisson, but "that's why science is so fascinating. It forces you to revise your conceptions."

A native of Quebec City, he did postdoctoral work in the United States and joined U of G in 1995. "My primary responsibility at this university is to be a teacher," says Poisson, who collected a Professorial Teaching Award from the U of G Faculty Association last year. He has taught undergraduate and graduate courses in statistical physics, quantum field theory and general relativity.



He is U of G's only theoretical astrophysicist and certainly the only one who spends his evenings alternately strumming a folk guitar in impromptu jam sessions with fellow physics professor Bob Brooks — "We both like to think we're Paul Simon," says Poisson — or catching the latest flick. "He lives in the

Bookshelf Cinema," says one colleague down the hall from Poisson's fourth-floor office in the MacNaughton Building.

Poisson continues to study black holes and other celestial bodies whose interactions are believed by scientists to generate a yet-undetected phenomenon: gravitational waves. The interaction of moving black holes or neutron stars caught up in a binary system generates these ripples that spread outward through the fabric of space-time. At least, that's what the equations suggest to him and to many others in the field, including Albert Einstein, who first postulated the existence of gravitational waves in 1918. There's just one cosmic-sized problem — no one has yet detected this radiation.

But, says Poisson, perhaps just as you use your eyes to view images on a movie screen or your ears to distinguish between Simon and Garfunkel, detecting gravitational waves is a matter of using the right receiver. That's the conviction of scientists who are building huge facilities in the United States and Europe designed to pick out these waves from the jumble of cosmic radiation bombarding Earth. The kilometre-long devices will use laser beams to detect the minute oscillations that gravitational radiation is suspected to cause. Poisson plans to study data collected at the Laser Interferometer Gravitational Wave Observatory, which will actually consist of twin detectors being built in Washington State and Louisiana.

"What I'm trying to do is make solid predictions about what gravitational radiation waves will be like," he says, explaining that the information might contain echoes of the beginnings of the universe from some 15 billion years ago.

"What's exciting about gravitational radiation is that all the information we now have about the universe came from light or other forms of electromagnetic radiation. There's been no other way of looking at the universe. With gravitational radiation, we're going to see the universe with a completely new set of eyes, and we're bound to see something that was never seen before."

PHOTO BY MARTIN SCHWABE

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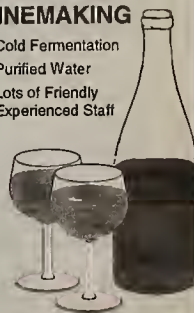
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EMC Concerned About Erosion of Academic Quality

Continued from page 1

bers of the University community. Following input from the University community, EMC will draft a set of recommendations that will, in turn, be the focus of wide campus consultation before final recommendations are prepared for the March meetings of Senate and Board of Governors.

At the town hall meeting, Summerlee outlined the six principles drafted by EMC in developing an overall approach to fees and support of students: costs of attending university, enrolment, tuition fees, financial aid, revenue generation and strategic options for the University. Two issues garnered the most discussion at the meeting — tuition and revenue generation.

In its draft principles, EMC has suggested that "if at all possible, the University should not increase undergraduate domestic tuition fees to the maximum rate allowable (10 per cent). EMC recognizes, however, that with a limited number of options available to increase enrolment or decrease costs, this may be very difficult to achieve."

One student asked how the University can justify an increase in tuition "when there is no increase in quality. Why are you always looking to students to pay more when they're not getting more quality?"

Summerlee responded that raising tuition is not something Guelph wants to do, but it is difficult to avoid in the face of continued government disinvestment. "We are pressing very hard for the government to invest more in post-secondary education," he said. "We, too, are very concerned about the erosion of quality."

He added that EMC has received a letter from provost Iain Campbell expressing similar concerns about educational quality and the impact of underfunding on keeping faculty at U of G and attracting new faculty.

That is why close to \$1.5 million is being proposed as an incremental investment in quality, building on last year's investments (see *Report on Maintaining Quality*).

Discussion was also prompted by an EMC suggestion that Guelph consider changing its tuition payment schedule to match those of many other Ontario universities where students are charged a fee if they want to pay their tuition in instalments rather than in a lump sum.

Several members of the audience said the extra fee would be a hardship for many students, especially those receiving support from the Ontario Student Assistance Plan (some 40 per cent of U of G undergraduates are on OSAP, which is paid out in instalments). One student noted that many students come to Guelph knowing they can pay their fees each semester without penalty and that this is a competitive advantage for the University. Another student said a change in U of G's payment schedule could have a negative impact on Guelph's image.

Summerlee stressed that the suggestion was only on the table for discussion at this stage and that the committee recognizes there are many issues, including perception of fairness and the competitive position of Guelph, to be considered.

One student urged EMC to give serious thought to the impact of any fee increases on students. "This affects students, how they eat and whether they eat," he said. "It really hits home to people — it's not just some numbers you can play around with. You're dealing with more than just a budget."

Summerlee responded that the student's comments "make a very compelling story that EMC will take very seriously."

Another student asked why the

University doesn't use more money from the Heritage Fund to benefit students and to offset the impact of underfunding. Nancy Sullivan, vice-president (finance and administration), responded that the Heritage Fund was established as an endowment fund, and the University can use only the interest it generates. The fund is to be used for one-time strategic investments for which there are no operating funds.

Sullivan noted that students have already seen many benefits from the close to \$6 million in income that has come from fund interest to date, including the purchase of Colleague, the new student information system; creation of the library database TRELIS; and redesign of courses to a distance education format to better serve students in the summer semester. These were essential needs, and without the Heritage Fund, the cost of these initiatives would have had to come from the operating budget,

forcing reductions in other areas of the University or an increase in tuition, she said.

The student responded that although she applauds the long-term thinking on which the Heritage Fund endowment was based, "given where we are now, facing a crisis year after year... it's a luxury to think long term that way."

President Mordechai Rozanski noted that when the Heritage Fund was established in the early 1990s, it was on the condition that the bulk of interest would be reinvested in the fund for the next 10 years. But in 1996, in the face of a severe funding cut from the province and looming clawbacks across campus, he went to B of G and asked that the University be allowed to access the increased amounts of the fund's investment income. Initially, these funds were used to repay special capital debt, said Rozanski, but since then, they have also supported strategic invest-

ments such as academic restructuring and replacing Guelph's critical computing systems in the library and registrar's office. The need for support from the Heritage Fund continues to accelerate, he said, "and I intend to go back for more."

Rozanski said it would be extremely short-sighted of U of G to spend rather than invest the principal earned from the sale or lease of University lands. "If you sell it and spend the principal, the money is gone," he said, and the problem remains the next year. If it's invested, the University's assets will continue producing income in perpetuity for future generations of students.

Summerlee urged the audience to be active in the consultation process and to send comments to him by e-mail. A town hall meeting to discuss EMC's draft recommendations on tuition and enrolment will be held March 9 at 5:30 p.m. in Room 117 of the MacKinnon Building.

Health Information to Be Shared

Continued from page 1

animal health and food microbiology areas of Lab Services, allowing the information to be easily shared among these groups and the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA). The program is based on Health Canada's integrated public health surveillance system.

Currently, sharing information between Lab Services and government agencies can be a labour-intensive task that involves a lot of duplication of paperwork. Frank Pollari, a veterinary epidemiologist with Health Canada who is working on the U of G project, says there is currently little information cross-

sharing. "People are enthused about this project because they can see the benefit of shared data," he says.

Health Canada, OMAFRA and U of G already have a good working relationship, adds McEwen. "By having this system in place, we'll be speaking a common language, the data will be available and it will be available quickly. This project will make it much easier for us to tap into some of the capabilities and expertise of the other groups. OMAFRA has supported us and recognizes the value of animal health data to individual producers, industry, trade and public health. Funding of this project by Health Canada further

emphasizes the importance of animal health and food safety to the Canadian public."

McEwen stresses that confidentiality of all information will be assured. Only statistical data, with no identifying information, will be shared between the human and animal health professionals.

"Linking Animal Health and Food Safety Data to Human Health" is one of 36 projects funded under HISP, which was established in March 1998 to support efforts to test and assess the use of new information technologies and applications in the health field.

BY GAYLE ANDERSON

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Don't Just Sit There

The human body needs movement to provide nutrition to the spine and to redistribute stress

SIT UP, SIT DOWN, sit all around, but don't just sit there. Novel research on the mechanics of sitting conducted by Prof. Jack Callaghan, Department of Human Biology and Nutritional Sciences (HBNS), suggests that not only is this apparently restful activity more stressful than you think, but your Grade 1 teacher's pat admonitions to "sit up straight" were also somewhat off the mark.

"Sitting looks like a pretty harmless activity — you just don't think it can harm you," says Callaghan. Think again. Back pain reported by everyone from assembly-line workers to word-processing clerks stems from numerous factors, but prolonged sitting is particularly hard on the back. Someone who sits all day is three times more likely to develop a back injury than individuals working at varying tasks, he says.

Back problems have accounted for about one-third of lost-time injury claims every year for the last decade in Canadian workplaces. Lost-time injuries caused by back problems cost American companies an estimated \$50 billion last year.

Callaghan is particularly interested in how sitting posture allevi-

ates or aggravates back stresses, especially in the lumbar or lower back region, the most vulnerable area. For his doctoral thesis completed at the University of Waterloo before joining U of G late last year, he recorded lumbar spine motions and muscle activation levels at 14 locations on the backs of seated subjects working for two hours, then calculated spine loads.

Unlike most biomechanists, who observe subjects seated more or less in a single prescribed position, he wanted to see what happened when subjects were free to move around on the chair and adopt whatever postures were comfortable.

The result? Far from conforming to the 90-90-90 posture (the right angles formed by knees, trunk and arms), most people adopt a variety

of postures, some so extreme as to resemble toe-touching.

Callaghan disputes the notion of adopting an "optimum" sitting position. "Any time you confine yourself to one fixed position, it's not healthy. The human body is designed to move. It needs movement to provide nutrition to the spine and redistribute stress concentrations that develop when the spine is exposed to a constant posture for prolonged periods."

And he says those stern warnings from your parents or schoolteachers were only half correct. "Slouching or slumping puts stress on your back, but sitting straight all the time isn't good either."

The best strategy for desk-bound workers is perhaps the most common-sense one — vary your sitting posture and take frequent breaks, every 15 minutes or so.

"By standing and by altering your posture, you redistribute stresses so you don't have a focal point where injury can occur."

The other must-have is a well-designed chair. "The most important thing about an ergonomic chair is that it be adjustable," says Callaghan. "It's a fit thing, like buy-

ing running shoes. You get what you pay for."

In a follow-up study, he hopes to learn more about how the sitting posture of people with a history of back pain relates to their level of pain or discomfort while seated.

Before rushing out to buy a new chair, you might consider another possible cause of all those aches and pains, one that has more to do with cultural anthropology than with human biology, says HBNS professor Susan Pfeiffer.

"Western society happens to be fond of chairs as aids to resting posture, but many societies around the world have done nicely without them," says Pfeiffer, who studies skeletal biology and human evolution.

"Think, for example, of traditional Japanese homes. The current relatively low incidence of hip fractures in elderly Japanese women has been tentatively attributed to their lifetime of squatting and of raising and lowering their body masses from the floor. Japanese-origin women in North America do not have this 'protection' from osteoporotic fracture."

BY ANDREW VOWLES

The Best Seat in the House

ALTHOUGH PROF. JACK CALLAGHAN is reluctant to endorse a particular brand name for an office chair, he says the University has approved several models that can be purchased through Environmental Health and Safety. Standards for approved chairs include the following:

- five-legged base (less likely to tip over);
- wide range of adjustability for all features, including seat height;
- adjustable chair tilt (leaning forward and back);
- adjustable seat pan tilt (seat rocks back and forth);
- adjustable lumbar support (should adjust vertically and for depth);
- adjustable arm supports that pivot aside so you can work close to your desk; and
- ability to lock any adjustable feature in a fixed position or allow it to move freely.

Another nice feature, says Callaghan, is a mesh seat pan rather than a cushioned one, which tends to retain heat from your, er, seat.

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Kids Fighting? Reaction Depends on Your Gender

Moms rely on 'care' tactics to handle sibling conflicts, dads turn to 'justice'

WHEN IT COMES to dealing with squabbling children, a parent's gender plays a major role, a U of G researcher has found.

In studies of Ontario families, Prof. Susan Lollis, Family Relations and Applied Nutrition, discovered that when handling sibling conflicts, mothers rely more on "care" tactics such as asking children to take one another's feelings into account, to share and to find mutually satisfying solutions. Fathers tend to rely on "justice" tactics such as who owns an object or who had it first. It doesn't matter whether the child is a boy or girl.

"Although the child's gender does not determine a parent's inclination for justice or care orientation, the parent's gender did," says Lollis. "It's interesting what lessons we can learn from the fights our children are having in the home."

Working with Hildy Ross from the University of Waterloo and graduate student Betty Brouwer, Lollis studied 40 families in the Guelph-Kitchener-Waterloo region over a two-year period. The families comprised two parents and two children.

Six 90-minute observation sessions were run when the children were two and four years old and again when they were four and six.

The parents ranged in age from 23 to 48.

With the two- and four-year-old siblings, mothers intervened in their children's squabbles more often than fathers did, and they tended to exercise "care" tactics twice as often as they relied on "justice" tactics. Fathers, on the other hand, relied on justice most of the time.

"Mothers' focus on care and fathers' focus on justice were found for both older and younger children and for both boys and girls," Lollis says.

She came up with the idea for the study after years of refereeing her own children's squabbles. "Much to my satisfaction, what I saw in my own home, I saw in other homes as well."

Siblings squabble often — an average of seven to 12 times an hour — and parental response influences how children learn to resolve problems, she says.

"I'm very interested in the positive side of fighting. We learn moral dilemmas in day-to-day living, and that is what really forms who we are."

The researchers were interested in studying how families deal with conflict and how children learn to care for one another and other people. Lollis expected to find that par-

ents relied more on "care" when dealing with their daughters and "justice" when confronting their sons, an assumption that has been supported by past field research. She discovered instead that the child's gender did not influence the parent's reaction — it was the gender of the parent that mattered.

In all the families, the mother was the primary caregiver, although about half of the women worked outside the home at least part time. Lollis says the study leads her to wonder whether the more time a person spends with their children, the more they rely on "care" strategies because they have a better understanding of the overall relationship of the siblings.

"The mothers had a higher tolerance for the fighting," she says. "Justice solves the problem quickly, while caring and working it out together takes longer. The findings raise an issue of whether children will eventually become like their parents, with grown-up girls concerned more with issues of care and grown-up boys with issues of justice."

This research was supported by the Social Sciences and Humanities Research Council of Canada.

BY LORI BONA HUNT

12 Graduate Students Get CIDA Support for Research

Grants fund projects throughout the world

TWELVE U OF G graduate students — nine from the School of Rural Planning and Development (SRPD) — have received grants from the Canadian International Development Agency (CIDA) to pursue research projects throughout the world.

CIDA awarded 51 research grants in the 1998 competition, with 41 going to university students and 10 to individuals representing private agencies. In addition to SRPD, U of G recipients represent the Department of Political Science, Department of Zoology and School of Rural Extension Studies.

"The School of Rural Planning and Development has a long history of CIDA support for international development activities in both development implementation and research in development," says SRPD director Prof. John FitzGibbon. "This year, students in the school have been exceptionally successful in securing CIDA scholarships."

Prof. Jim Shute, director of the Centre for International Programs, notes that these and other research and travel awards won by U of G students "add richness to the Universi-

ty's internationalization efforts, as well as contributing much to the personal and academic development of our students."

The recipients, their projects and their host countries are as follows:

- Lisa Brinkman, SRPD, "Rights to Forest Resources in the Buffer Zones of Two National Parks," Vietnam.
- Vince Deschamps, SRPD, "An Evaluation of the Conservation Value of Community Participation in the Planning and Management of Protected Areas," Indonesia.
- John Gaudi, SRPD, "American Indian Community-Based Tourism in Guyana: Managing the Impact of the Eco-tourism Development," Guyana.
- Rahmouna Khelifi-Touhami, SRPD, "Examination of the Factors Affecting the Role of Women in Small Ruminant Production Systems," Syria.
- Neluka Leverage, Rural Extension Studies, "The Role of Indigenous Knowledge Systems in Improving Forest Management and Conservation of the Knuckles Forest," Sri Lanka.

- Catherine Phillips, Political Science, "Permaculture in Southern Africa: Popular Participation, Food Security and Environmental Regeneration," South Africa.
- Amisha Modi, SRPD, "African Market Women: A Window on the Structural Adjustment Process," Tanzania.
- Steve Rotter, SRPD, "Fair Trade Coffee Impacts in the Case of San Lucas," Guatemala.
- Claudia Schaefer, SRPD, "Sustainability Implications of Rural Industrialization: Social and Forestry Impact of Micro Enterprises in the Upper East Region," Ghana.
- Carolyn Switzer, SRPD, "Biodiversity Conservation in India: Comparing State and Community Approaches," India.
- Lillian Thomas, SRPD, "Empowering the Generations: The Impact of Savings Programs on Rural Women and Their Female Children," Nepal.
- Dara Torgerson, Zoology, "The Epizootiology of Sandflies and Human Leishmaniasis," Venezuela.

Students Plan Intellectual Freedom Forum

Campus-wide initiative will encourage exploration of academic and intellectual freedom issues

CAUGHT UP in day-to-day activities of research, teaching and studying for finals, members of the campus community may sometimes forget that universities offer an arena in which to debate and examine the freedoms society holds dear.

That notion was taken up by a pair of students last fall, and the result is U of G's 1999 Intellectual Freedom Forum.

Throughout 1999, the student-led initiative will encourage exploration of academic and intellectual freedom issues in and out of the classroom. With the support of faculty and staff, organizers hope to focus fresh discussions on these freedoms, which are central learning objectives of the University. Having just received Senate endorsement in mid-January, the forum program is still being developed, but will probably include lectures, debates and the publication of learning resources.

The forum is the brainchild of Stephen Wicary and Sean Yo, chair and treasurer of the College of Arts Student Union, respectively.

"Moral maturity is a learning objective of education, but is often taken for granted," says Wicary, a third-year philosophy student. "It's

not always discussed formally. The forum will attempt to have current issues discussed in a classroom setting and referred to the larger issues of academic and intellectual freedom."

The forum will stir debate by delving beyond the day's news to the fundamental issues underlying them, such as the issues of freedom of expression stirred by the APEC and Dr. Nancy Olivieri cases.

The project began with a letter last fall to president Mordechai Rozanski, asking for financial support for the APEC Protesters Legal Support Fund. Because this would have been inconsistent with institutional practice, the University was unable to fulfil this request, but Rozanski did meet with Wicary and Yo to discuss the matter further and encouraged a larger and sustained educational perspective. A commitment was also made to support a project that would raise awareness of issues of academic and intellectual freedom at U of G.

"After that, Sean and I passed ideas back and forth," says Wicary, "and consulted with Brian Sullivan (associate vice-president for student affairs) and the Office of Student Affairs."

The next step was ensuring representative bodies on campus were consulted, what Wicary calls "jumping through institutional hoops." Those hoops were cleared in short order. From the initial letter to Rozanski in October, the forum proposal was endorsed by the School of Literatures and Performance Studies in English, the College of Arts Dean's Council, the Vice-President Academic's Council, Student Senate Caucus, the Senate executive and the Board of Undergraduate Studies before it was finally presented to Senate Jan. 19 by Student Senate Caucus co-chair Kirsten Mercer. There, it received overwhelming support. The caucus is serving as organizational sponsor for the project, and the Senate Office is providing administrative assistance.

The speed with which the forum has come to pass is a positive, says Prof. Alastair Summerlee, acting associate vice-president (academic). "This is an example of a member of the campus community coming up with a good idea — no matter whether faculty, staff or student — and that good idea being taken up by the institution at an institution-wide level."

Sullivan agrees. "We might sometimes forget that 'learner-centred' includes faculty and staff and not only students," he says. "I think part of the reason this proposal moved so quickly is that people were ready to do something together, which is why you see this level of support coming from all corners of the campus."

It's early days yet, with items "being formalized week by week" says

Wicary, but a student-driven steering committee plans several components, including a public debate and a lecture series beginning this semester, a conference, publication of key materials and a large-scale colloquium featuring a presentation of student papers in the fall.

"We hope to get started with a public debate some time after reading week," he says. "We are also hoping to have a presentation by the Canadian Civil Liberties Association, and we have been in touch to see whether Dr. Olivieri would like to come and speak at one event."

For more information or to become involved in the forum, contact Wicary by e-mail at swicary@uoguelph.ca.

BY ALEXANDER WOOLEY

Hope After the Storm

Campaign aims to raise \$25,000 for victims of Hurricane Mitch

ACAMPUS-WIDE campaign will begin March 1 to raise money for the victims of Hurricane Mitch. The initiative, called "Hope After the Storm," is being spearheaded by a steering committee made up of representatives of the Graduate Students' Association, Central Student Association, Interhall Council and CUPE Local 3913.

Although primarily student-driven, the campaign has also received strong encouragement from the University administration and the U of G Faculty Association, says graduate student Ian Myles, the campaign's volunteer co-ordinator.

Hurricane Mitch, the most destructive storm to hit Central Amer-

ica in 200 years, caused massive flooding and landslides in Nicaragua and Honduras, killing 10,000 people, leaving 1.5 million homeless and destroying more than 70 per cent of the countries' crops. Total infrastructure damage has been estimated at \$7.5 billion. The most immediate needs are to rebuild water and sanitation systems to avoid wide-scale disease epidemics and to provide housing.

Following the disaster, several clothing drives and fund-raisers were organized, and the University community responded generously, says Myles. "Hope After the Storm" hopes to complement these initial efforts and has set its fund-raising tar-

get at \$25,000," he says. "Although this sounds ambitious, we are convinced that U of G will reach it. After all, \$25,000 works out to only about \$2 per person on campus — less than a large coffee."

The campaign aims to involve all segments of the University community, says Myles. A team of more than 25 volunteers has already been assembled to carry out a wide range of activities, including information/donation booths, poster campaigns, coffeehouses and other special events. If you are interested in volunteering or have a fund-raising activity you would like to organize, call Myles at Ext. 8527 or send e-mail to imyles@uoguelph.ca.

Dressing for Dollars

CAMPUS RESIDENCE assistants raised \$6,100 for Rathby House and the Ontario Special Olympics Foundation this fall by "dressing for dollars." About 80 RAs volunteered to get "dressed up" by their respective houses in exchange for pledges and donations. Residence life staff promoted the

event in their living areas, classrooms and high-traffic areas on campus.

This was the second year for the event, which raised \$2,500 in its inaugural year. Of the \$6,100 raised, \$4,100 was donated to the Special Olympics and \$2,000 went to Rathby House.

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ARBORETUM

The Arboretum Auxiliary hosts a pancake breakfast Feb. 27 from 9:30 to 11:30 a.m. at the Arboretum Centre. Bring your own plates, cups and utensils. Tickets are \$2 each, \$5 per family.

Horticulturist Henry Kock leads half-day workshops on "The Art and Practice of Pruning" in March. Sessions run March 11 at 1 p.m. and March 13 at 9 a.m. and 1 p.m. Cost is \$25. Registration and payment are required by Feb. 25. To register, call Ext. 4110.

Theatre in the Trees presents the dinner-theatre comedy *The Second Time Around* by Henry Denker Saturdays until April 24 at the Arboretum Centre. Doors open at 6 p.m.; showtime is 8 p.m. Tickets are \$45 and are available at Ext. 4110.

ART CENTRE

The Macdonald Stewart Art Centre, the Centre for Cultural Studies and the School of Fine Art and Music present a colloquium on "Art Practice and Social Change" Feb. 11 to March 9 as a tribute to Prof. Suzy Lake, Fine Art and Music, whose exhibition "Selected Work and Recent Acquisitions" runs at the centre Feb. 11 to July 25.

The art centre is offering an art camp for children aged seven to 12 March 15 to 19. Cost is \$175. Register in person at the art centre.

ATHLETICS

The basketball Gryphons are at home to McMaster Feb. 17 at 6 p.m. (women's) and 8 p.m. (men's).

Guelph hosts the CIAU swimming championships Feb. 19 to 21 and the CIAU wrestling championships Feb. 26 and 27.

The men's hockey team is at home to Queen's Feb. 20 at 7:30 p.m. and the Royal Military College Feb. 21 at 2 p.m.

The women's basketball team hosts Western Feb. 24 at 7:30 p.m.

CONCERTS

The winter Thursdays at Noon concert series continues Feb. 11 with pianist Alma Petchersky and Feb. 25 with an alumni concert featuring percussionist Jessie Stewart and friends, including Prof. Howard Spring, Fine Art and Music, on guitar. The concerts are in MacKinnon 107. Admission is free, but donations are welcome.

LECTURES

Third Age Learning-Guelph's winter lecture series for retired people continues Feb. 20 with retired history professor Lew Abbott discussing "Potemkin Villages and Instant Cities" at 10 a.m. and Prof. John

McMurtry, Philosophy, exploring "The Economics of Life and Death in the Global Market" at 1:30 p.m. Lectures are at the Arboretum Centre.

The Human Rights and Equity Office presents sports journalist Laura Robinson discussing "Sexual Harassment in a Sports Culture" Feb. 11 at 7:30 p.m. in Peter Clark Hall. Admission is free.

The Veterinary Students' Association presents Karen Gellman of Cornell University discussing "Chiropractic and Acupuncture in Equine Medicine" Feb. 25 at 7 p.m. and Feb. 26 at 12:30 p.m. in OVC 1714.

NOTICES

The Health and Performance Centre is offering a walking program Tuesdays and Thursdays over the noon hour. People with all levels of exercise ability are welcome. The group meets at noon in Room 203 of the Powell Building for 15 minutes of stretching and calisthenics and walks until 1 p.m.

Senate is calling for nominations for two seats designated for full-time permanent members of the University's non-teaching staff. The term of office is three years, beginning Sept. 1. Nomination deadline is Feb. 12 at 4:30 p.m. in the Senate Office.

The deadline for nominations for the 1998 Ontario Confederation of University Faculty Associations teaching awards and academic librarianship award is Feb. 19. Nominations must include a nomination form, a nominator's brief and sufficient evidence, from as many sources as possible, to make it clear that outstanding work deserving of recognition has been done. For more information, call 416-979-2117, send e-mail to ocufa@ocufa.on.ca or visit the Web site www.ocufa.on.ca.

The Celanese International Fellowships provide opportunities for Canadians to study abroad to build their international competence. The awards are open to outstanding university graduates in all disciplines of study and are valued at \$10,000. Application deadline is March 1. More information is available at the InfoCentre in the Centre for International Programs or on the Web at www.celanese.ca.

The Social Sciences and Humanities Research Council is launching a pilot program called Community-University Research Alliances to support collaboration between universities and community organizations to tackle issues of common concern. The deadline for letters of intent is April 1. For more information, visit the Web site www.sshrc.ca/english/programinfo/grantsguide/cura.html.

The U of G Alumni Association invites nominations for its three annual awards of excellence — the Alumnus of Honour award, the

Alumni Medal of Achievement and the Alumni Volunteer Award. Nomination deadline is Feb. 26. Send nominations to Lavern Hambley, chair of the UGAA Honours and Awards Committee, at Alumni House. For more details, call Carla Bradshaw at Ext. 6533.

The winter deadline for nominations for honorary degrees and University professors emeriti is Feb. 28. For information about the nomination process, call the Senate Office at Ext. 6758.

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) has announced another deadline for its Food Systems 2002 Pest Management Research Program. The ministry is providing up to \$15,000 for short-term projects and \$50,000 a year for long-term projects. Application deadline is Feb. 26 to the Office of Research and March 5 to OMAFRA. Application details are available at the Office of Research or by calling Barbara Leachman at Ext. 8761.

The Canada-Taiwan Student Exchange Program offers support for travel and living expenses for up to 30 full-time undergraduate students from any faculty or discipline for five months, beginning Aug. 31. Application deadline is March 12. Information is available from the Centre for International Programs InfoCentre in Day Hall, from Malinda Provost at mprovost@uacc.ca or on the Web at www.uacc.ca.

The Rotary Club of Guelph invites applications for the Rotary Foundation's 2000/2001 Ambassadorial Scholarships. The scholarships are for one regular academic year at a study institution assigned by the foundation. Application deadline is March 1. Students must apply through their local Rotary Club. For more information, call Rosemary Clark at 822-4687.

The Equine Research Centre is hosting a fund-raising dinner, silent auction and evening of harness racing Feb. 21 at Hamboro Downs. Doors open at 5 p.m.; post time is 6:20 p.m. Tickets are \$40, with proceeds going to support research and education initiatives at the centre. To buy tickets or donate an item to the silent auction, call 837-0061.

SEMINARS

The Department of Chemistry and Biochemistry presents Perry Martos of Laboratory Sciences considering "Physical Chemical Properties of Solid-Phase Microextraction for Air Sampling" Feb. 16 at 3:15 p.m. in MacNaughton 222.

The Department of Food Science presents Qi Wang of Agriculture and Agri-Food Canada discussing "Hydration Kinetics of Water-Soluble Non-Starch Polysaccharides" Feb. 19 at 12:30 p.m. in Food Science 241.

Next up in the Department of Animal and Poultry Science graduate seminar series is Philip Sinclair on "Neonatal Rise in Steroid Hormone Production and Its Relation to the Compounds Associated with Boar Taint" Feb. 23 at 11:30 a.m. in Animal Science and Nutrition 141.

The Axelrod Institute of Ichthyology Loaves and Fishes seminar series continues Feb. 23 with Rob McLaughlin, Department of Zoology, examining the "Impact of Low-head Barrier Dams on Lamprey" at 12:30 p.m. in Axelrod 168.

The Department of Family Relations and Applied Nutrition presents Prof. Judy Sheesha discussing "Moving from a 'Bottle-Feeding Culture' to 'Baby-Friendly Communities'" Feb. 23 at 2:30 p.m. in FACS 103.

Andrew Hime of Los Alamos National Laboratories is guest speaker in the Department of Physics seminar series Feb. 23 at 4 p.m. in MacNaughton 113.

The Plant Biology Council presents John Lott of McMaster University Feb. 24 at 3 p.m. in Axelrod 259. His topic is "A Global Estimate of the Phosphorus and Phytic Acid Sequestered Each Year in Crop Seeds/Fruit and How Environmental Scanning Electron Microscopy Aided This Project."

The "Our World" series sponsored by the Centre for International Programs focuses on working for overseas organizations Feb. 24. The free two-hour session begins at 6:30 p.m. on Level 2 of Day Hall.

The biochemistry seminar series features graduate student Heather McDiarmid explaining "Development of An *In vitro* Mammalian Cell Matogenesis Assay for Indirect-Acting Mutagens" Feb. 25 at noon in MacNaughton 222.

TEACHING SUPPORT

During Reading Week Feb. 15 to 19, Teaching Support Services' redesigned Teaching Resource Centre in Day Hall 125 will be open from 8:30 a.m. to 4:30 p.m. for faculty and instructional staff to check out its services and resources. The new Learning Technologies Lab in Room 216 will be open from 1 to 4 p.m., with TSS staff available to help faculty and staff interested in using the workstations to create a PowerPoint presentation or develop a Web page.

The TSS Friday forum series for teaching assistants continues Feb. 12 with "Facilitating Student Learning with Style" at 10:30 a.m. in the group viewing room on the third floor of the McLaughlin Library.

TSS is offering workshops on "Videoconferencing Training" Feb. 15 at 10:30 a.m., "PowerPoint 1: An Introduction to Creating Presentations" Feb. 15 at 9:30 a.m., "Web-

Based Testing" Feb. 17 at 10:30 a.m., "PowerPoint 2: Beyond the Basics" Feb. 18 at 10 a.m., "Garbage or Gold Mine? Critically Evaluating Web Resources" Feb. 23 at 10 a.m. and "Burning a CD-ROM Disk" Feb. 26 at 10:30 a.m. Full workshop descriptions are available on the Web at www.tss.uoguelph.ca. Register for all workshops with Helen Martin at Ext. 2973.

The next deadline for applications for instructional development grants is Feb. 26. For details, visit the Web site www.tss.uoguelph.ca/idgrants.html.

THESIS DEFENCES

The final examination of M.Sc. candidate Laura Coulman, Family Relations and Applied Nutrition, is Feb. 22 at noon in HAF 243. The thesis is "Knowledge, Attitudes and Experiences of Resource Teachers and Resource Consultants in Inclusive Child-Care Centres in Ontario." The adviser is Prof. Donna Lero.

The final examination of M.Sc. candidate Anthony Fishback, Department of Zoology, is March 1 at 9 a.m. in Axelrod 265A. The thesis is "Genetic and Environmental Influences on the Spawning Time and Progeny Growth of Hatchery Rainbow Trout." The adviser is Prof. Roy Danzmann.

COMMUNITY EVENTS

Retired U of G philosophy professor Tom Settle leads a lecture series titled "What Is God Up to Permitting So Much Evil?" Wednesdays from Feb. 24 to March 24 at Dublin Street United Church. Lectures run at 1:30 and 7:30 p.m.

The Canadian Wildflower Society meets Feb. 23 at 7:30 p.m. at the Arboretum Centre. Guest speaker is Prof. John Klironomos, Botany.

Violeta Perez, co-founder of La Zona, a grassroots group of women working for human and labour rights in the free-trade zones of the Dominican Republic, will speak in Guelph Feb. 22 at 8 p.m. at the Tributaries Café. Sponsored by the Ontario Public Interest Research Group, the Guelph International Resource Centre and the Guelph Labour Council, the talk will focus on sweatshops.

Guelph and Wellington County Master Gardeners hold their third annual garden conference Feb. 21 from 9:30 a.m. to 4 p.m. at the Guelph Turfgrass Institute. Tickets are \$25. For more information, call Judith Renaud at 836-7537.

The Victorian Order of Nurses needs volunteers throughout the Waterloo region and Wellington County to help out with office work, fund-raising and promotion, volunteer visiting, foot care and seniors' fitness. For more information, call 822-5081, Ext. 1112.

IN THIS ISSUE

3 **DEBATERS** talk their way to the top.

4 **SHOULD** you dip into your retirement savings to buy a new home?

5 **RURAL** extension specialist has a window on the world.

8 **NEW** director of business development named.

SEE PAGES 6 AND 7 for a special Council of Ontario Universities report on the double cohort issue.

College Royal Kicks Up Its Heels at 75

Something for everyone at open house March 13 & 14

U OF G STUDENTS and alumni entered in the annual square dance competition won't be the only ones kicking up their heels at this year's College Royal.

"We want the 75th College Royal to be the best ever," says president Mark Nibourg, "so every committee has made an effort to have something going on in every building for the March 13 and 14 open house, something for every interest, to excite the mind and stimulate the senses of the young and old."

College Royal celebrations will begin March 3 with a 5:30 p.m. wine and cheese reception in the University Club, followed at 9 p.m. by a pub in Peter Clark Hall. Student events continue the next week as a buildup for the traditional open house weekend.

"This year's College Royal displays and events will be bigger and better than ever to celebrate the 75th anniversary," says Nibourg.

The first College Royal was held in January 1925, an afternoon show in the livestock pavilion (the Bullring) and the field husbandry building. OAC professor Wade Toole promoted the idea, and individual

Continued on page 10



CLASS DISMISSED!

These graduates of the College of Social and Applied Human Sciences were among more than 630 U of G students receiving degrees and diplomas at winter convocation Feb. 17 and 18. From left are BA graduate Nicole McCord, B.Comm. graduates Paul Galbraith, Joe Hodgson and Marcus Lepkowski and BA graduate Jeremy Morgan. U of G also presented three honorary degrees — to world-renowned linguist Noam Chomsky, Queen's University of Belfast president George Bain and University of Waterloo earth scientist Robert Gillham.

PHOTO BY MARTIN SCHWALBE

Federal Boost to Funding Agencies Good News for University Researchers

Budget includes \$176-million increase for NSERC and SSHRC

RESearchers AT U OF G, along with Canada's other universities, got a boost last week from the federal government, which allocated more than \$400 million in additional support to research-granting agencies in the 1999 budget.

The budget includes an additional \$200 million for the Canada Foundation for Innovation (CFI) and a \$176-million increase for the Natural Sciences and Engineering Research Council (NSERC) and the Social Sciences and Humanities Research Council (SSHRC). There will also be another \$90 million for the Networks of Centres of Excellence program in the next three years.

"More money in the system for research is a positive recognition of the value of research," says Prof. Ross Hallett, U of G's newly named assistant vice-president (research infrastructure programs), who will handle CFI applications and partnerships. To date, U of G has received CFI funding under the Institutional Innovation Fund for a

holistic agricultural project, the first of its kind in Canada. CFI has yet to determine the amount of funding, but \$750,000 was requested. The project will be headed by Prof. Terry Gillespie, chair of the Department of Land Resource Science. Four projects involving 11 U of G researchers received \$500,000 in research funding from CFI's New Opportunities program.

Researchers from Canadian universities compete for research dollars from CFI, NSERC, SSHRC and other agencies. More money in the pool means Guelph's chances of having its projects funded are higher, says Hallett.

Prof. Gerry Manning, acting dean of the College of Arts, also welcomes news of greater support for the funding agencies, noting that researchers in the arts and humanities depend heavily on SSHRC grants, which have been significantly reduced over the years. "It has caused a great deal of stress among researchers, so any reversal in that unfortunate trend is welcome," he says.

Prof. Larry Milligan, vice-president (research), says he is pleased the federal government is making knowledge and innovation a priority. "University researchers in Canada have already made many significant contributions in health, science, medicine, arts, humanities and social sciences," he says. "This new funding will allow them to continue and expand vital work now and could eventually support greater integration of cultural and social aspects with experimental science."

In addition to allocating more money to the granting agencies, the government is creating a new organization — the Canadian Institutes of Health Research (CIHR) — to co-ordinate and provide national focus to Canada's health research efforts and to better integrate research into the health-care system. Finance Minister Paul Martin set aside \$240 million for the centre's initial two years of operation. The Medical Research Council (MRC) will be incorporated into CIHR, and researchers receiving MRC funding will con-

tinue to be supported. U of G is currently the top recipient of MRC funding among universities without medical schools.

In addition, to ease the transition to CIHR's creation, CFI, NSERC and SSHRC, as well as the National Research Council (NRC) and Health Canada, will share an additional \$150 million over three years.

The formation of CIHR is intended to accelerate the prevention of disease and discovery of cures, to forge an integrated national health research agenda, to foster collaboration across the disciplines of health research, and to bring new health products and services to the world. The institutes will create networks that will draw together scientists across the full spectrum of health research, including universities and the private sector.

"I am a very happy camper," says Prof. Paula Brauer, Family Relations and Applied Nutrition, when asked about CIHR's formation. Brauer,

Continued on page 8

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SENATE REPORT

EMC Principles on Enrolment, Tuition, Financial Aid Evolve

PROF. ALASTAIR SUMMERLEE, acting associate vice-president (academic) and chair of the Enrolment Management Committee (EMC), presented EMC's principles for recommendations on enrolment, tuition and financial aid to Senate for information and comment Feb. 9. Summerlee presented Draft 9 of the

principles, noting that their development has been an evolving process based on cross-campus consultation and discussions with faculty, staff and students. He acknowledged the considerable input EMC has received from students during this process and the hard work of committee members in rewriting the principles.

Summerlee presented highlights of EMC's five principles: costs of attending university, enrolment, tuition fees, financial aid and strategic options.

Mindful that Guelph is a residentially intensive university and that the total cost of attending university is very important to students, EMC is suggesting that any proposed increase in residence, meal plan or ancillary fees not exceed those required to meet increases in inflationary costs, safety and maintenance of the current level of services.

Summerlee reported that EMC hopes to achieve the same enrolment intakes as in 1998, with slight increases in selected undergraduate programs, in graduate programs and in the number of international students. Because of increased enrolment last year, U of G was able to limit its tuition increase to 7.5 per cent in 1998/99, he said, but the University is now at capacity and does not have the option of significant increases in student numbers with its current resources. EMC is suggesting that, if at all possible, U of G not increase undergraduate domestic tuition fees to the maximum rate allowable (10 per cent), but recognizes that this may be difficult to achieve given the restraints the University is facing.

Summerlee told Senate that U of G ranks ninth in the province in undergraduate domestic tuition costs, but is second highest in graduate tuition and ancillary fees. For that reason, EMC suggests that U of G limit any increase in graduate tuition fees to no more than five per cent. EMC is not recommending any additional differentiation or deregulation of tuition fees for existing programs this year.

Calling financial aid for students "absolutely seminal," Summerlee reported that EMC believes Guelph should continue to expand its comprehensive approach towards financial aid, paying particular attention to increasing accessibility and reducing student debt load. In 1998/99, about \$7.6 million was available in financial aid, just over half of which (51 per cent) was distributed on the basis of financial need. Of the total, 42 per cent went to entering students and 58 per cent to continuing students.

Summerlee told Senate it's im-

portant to consider the balance between entrance and continuing awards and between merit and needs-based awards. He said more money is needed for merit-based entrance awards to ensure that Guelph continues to attract high-quality students at a time when competition among universities is increasing and other institutions are putting large sums of money into entrance scholarships.

Several faculty and student senators cited cases of students receiving substantially higher offers from other universities and asked what Guelph can do to counteract this. President Mordechai Rozanski responded that U of G must continue to press the government for increased support, but must also build its own resources. He noted that one of the goals of Guelph's upcoming major fund-raising campaign is to further strengthen the University's general endowment, 80 per cent of which goes to student financial aid.

A student senator said that although she was glad to see the University's commitment to increasing scholarships, she was concerned about students who fall through the cracks — those who aren't eligible for OSAP or needs-based scholarships but are unable to earn the high marks needed for merit-based scholarships because they are working to pay their way through school. Summerlee acknowledged that U of G's scholarships do serve two distinct populations — students with high academic achievement and those with financial need — and that there is a large cadre of students in the middle that Guelph cannot yet serve with the funding it has.

In response to another student senator's suggestion that U of G's focus on increasing merit-based scholarships to attract "quality" students implies that "quality" is based solely on high marks, Summerlee said the University is committed to quality in all forms. He noted that up to 20 per cent of Guelph students are admitted on the basis of a student profile form. U of G wants a diversity of individuals, he said, but it is also concerned about losing students to other universities that can offer more money.

Summerlee also outlined for senators several strategic options

EMC has put on the table for consideration. One that has already received a flurry of responses from students across campus is a suggestion that Guelph consider changing its tuition payment schedule to match those of other Ontario universities where students are charged a fee if they want to pay their tuition in instalments rather than in one lump sum. In response to student input on this issue, he acknowledged that Guelph's current system of allowing students to pay by the semester is a good fit for the University and gives U of G a competitive advantage over other universities. Another option would be to allow students to pay their tuition in monthly instalments for a fee, he said.

The co-chair of Student Senate Caucus rose to commend EMC's response to student input and Summerlee's quick response to the many e-mails he has received.

Also under consideration are options for increasing the transparency of tuition fees for graduate programs and the introduction of niche programs aimed at attracting new undergraduates.

Prof. Mike Matthews, chair of the Department of Psychology, said EMC's principles fail to address the issue of open learning students. These students are a significant source of income, can be readily accommodated and widen the University's accessibility, he said, but they received no mention in the document. Summerlee acknowledged that the document offers no recognition of the amount of hard work being done in the Office of Open Learning and the money it brings into the University. He told senators it was important to appreciate that a considerable amount of course work is achieved through distance education, particularly in the summer semester, and this is already accounted for in the summer semester revenue.

ACCESS MODEL FOR LIBRARY ACQUISITIONS APPROVED

Senate approved a new access model for library acquisitions expenditures beginning with the 1999/2000 fiscal year. Two years in the making, the model is based on extensive review by the allocations

Continued on page 10



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HALLETT NAMED ASSISTANT VP

Prof. Ross Hallett, Physics, has been named assistant vice-president (research infrastructure programs) on a two-year half-time appointment that began Jan. 1. Hallett, who joined U of G in 1969, has made extensive contributions to building U of G's submissions to the Canada Foundation for Innovation and the Ontario Research and Development Challenge Fund over the past year and will continue with this work.

ASSOCIATE DEAN APPOINTED

Prof. John Walsh, director of the School of Hotel and Food Administration, has been named associate dean of the new Faculty of Management on a half-time appointment for two years. Walsh has been a faculty member at Guelph since 1988.

SEARCH ON FOR NEW HUMAN RIGHTS DIRECTOR

A search committee has been established for the position of director of the Office of Human Rights and Equity. Brian Sullivan, associate vice-president (student affairs), will chair the committee, which is expected to make recommendations to the president in April. Other members of the committee are Prof. Rickey Yada, Food Science; Prof. Bruce Koenig, Literatures and Performance Studies in English; Marg Carter, Environmental Biology; Melanie Howarth, Human Resources; undergraduate student Lisa Amin; graduate student Lesley Reed; and Prof. Isobel Heathcote, acting dean of graduate studies. Five members of the committee are also members of the Human Rights Working Group.

DEAN CANDIDATES TO SPEAK

Members of the campus community are invited to public lectures by candidates for the position of dean of the College of Social and Applied Human Sciences. The lectures were led off by interim dean Michael Nightingale Feb. 23 and continue March 3 with Morton Weinfeld of McGill University, March 8 with Sohrab Abizadeh of the University of Winnipeg and March 17 with Christopher Bryant of the University of Montreal. All lectures run from 9:30 to 11 a.m. in the Eccles Centre.

NEW VERSION OF KEYBOARD DIRECTORY LAUNCHED

The Counselling and Student Resource Centre is launching a new and improved version of its keyword directory this week and encourages students, staff and faculty to visit the new Web version of the alphabetized information directory at www.uoguelph.ca/csrc/keyword/ or by clicking on the "keyword" icon at the bottom of the University's student home page. Send any comments or corrections to Laurie Schnarr at lschnarr@uoguelph.ca.

They Are the Champions!

Guelph debaters capture first place at North American competition



Provost Iain Campbell, right, congratulates winning debaters Nathan MacDonald and Averill Pessin.

PHOTO BY MARTIN SCHWALBE

TWO U OF G STUDENTS brought home the top prize last month from the North American Debating Championships at Smith College in Springfield, Mass.

Averill Pessin, a fourth-year philosophy student originally from Vancouver, and Nathan MacDonald, a fourth-year political science and philosophy student from Sydney, N.S., captured first place in 10 rounds of debate, beating teams from Princeton, Stanford, Brandeis, Johns Hopkins, McGill, Queen's University, the University of Toronto and the University of Western

Ontario. In the final round, Pessin and MacDonald beat a team from New York University in a debate on the ethics of colonialism.

MacDonald was defending the North American championship he won last year while on a letter of permission at the University of Western Ontario. No other debater in the history of the North American championship has ever won twice, let alone two years in a row. In the fourth round of debate, he received a perfect score of 30/30, an unprecedented achievement in North American debate.

Both MacDonald and Pessin credit their win to the training they've received as members of the U of G Debating Society and the financial support the society has received from across the University, enabling team members to attend tournaments. A full list of sponsors is online at www.uoguelph.ca/~ugds.

The Debating Society will host its own tournament — the third annual North American Novice Open Championships — March 19 to 21. Anyone interested in sponsoring the event can send e-mail to ugds@uoguelph.ca.

Guelph Builds on Applications

Sustained growth since 1996 reflects attractiveness and quality of U of G

COMPETITION AMONG Ontario universities for qualified secondary students is heating up, with U of G receiving first-choice applications from 4,044 secondary students in 1999, an increase of 1.1 per cent. System-wide, first-choice applications increased an average of 5.7 per cent in 1999, according to statistics released by the Ontario Universities' Application Centre. Overall, applications to U of G increased 23.7 per cent in 1999, compared with 26.4 per cent across the system.

"Although we are slightly below the system average this year, we have still been able to build on our previous increases," says registrar Chuck Cunningham.

U of G is No. 2 province-wide in increases in first-, second- and third-choice secondary student applications between 1996 and 1999. During this period, applications to U of G increased by 17 per cent, compared with the system average of 3.8 per cent. Only the University of Toronto exceeded U of G's increase, with a 19.1-per-cent jump since 1996.

"Not many universities have been as consistent as U of G over the past three years," says Cunningham. "Only two other universities in the province have shown overall growth in applicants every year in each of the last three years."

In fact, U of G's application increases come at a time when more than 40 per cent of Ontario's universities have seen decreases in both first-choice applications and top-three-choice applications.

"We are pleased that we continue to build on one of the largest pools of qualified applicants in Ontario," says Cunningham. "Not only is the number of our applications increasing, but we also expect most of those who are applying will meet or exceed our high academic standards."

President Mordechai Rozanski says he's pleased with the numbers. He believes the University's sustained increases since 1996 reflect the attractiveness and quality of U of G.

Rozanski notes that Guelph receives more first-choice applications from high-quality students

than it can accept. The University gets more than 14,000 applications from high school students each year — 4,000 of them first-choice applications — and has only 3,000 places.

"Since we announced our admissions cutoffs early, I expect that our applications are firmer than most," says Rozanski. "But we must realize that we are in a very competitive environment this year and must continue our active recruitment to reach our enrolment targets. I am confident that our top-notch liaison staff will work hard to continue our past success."

Prof. Alastair Summerlee, acting associate vice-president (academic), agrees with this realistic assessment. With a new admission cycle about to begin, all universities are looking to boost enrolment, he says. In the past, U of G has had an advantage because it implemented effective enrolment management strategies several years ago, he says, "but now universities that have been losing ground have had to divert resources to promote enrolment. The competition for students will be extremely fierce."

BY LORI BONA HUNT

PEOPLE

THREE CAPTURE GOVERNOR GENERAL'S SCHOLARSHIPS

U of G students have received three of 15 Governor General's Canada Scholarships in Environmental Sciences awarded by Industry Canada and Du Pont Canada Inc. for 1998/99. The winners, all B.Sc.(Env.) students, are Katherine Bitzer of CBS, Romi Oshier of OAC and Raegan Bunker of CPES. Valued at \$1,500, the scholarships aim to foster greater environmental awareness in young Canadians and encourage those who show outstanding commitment to resolving environmental problems.

STELTER NAMED PRESIDENT

University professor emeritus Gil Stelter, History, was appointed first Canadian president of the Urban History Association, Jan. 1. Cited for his long and distinguished contributions to the international field of urban history, he will serve as president of the Chicago-based association until 2001.

OVC STUDENT WINS AWARD FOR BOVINE MEDICINE

Third-year OVC student Michele Martin is one of 10 winners of the 1998 American Association of Bovine Practitioners Amstutz Scholarship Award and the only Canadian recipient. Sponsored by Elanco/Provel, the \$1,500 scholarships encourage outstanding students to pursue careers in bovine medicine.

PHILOSOPHER GIVES TALK

Prof. Ken Dorter, Philosophy, gave a talk at the University of Buffalo on "Philosopher Ruler: How Theoria Becomes Praxis," explaining how Plato overcomes the paradox that philosophical training, whose light is supposed to blind us to the darkness of the Cave, is nevertheless said to render us best capable of governing life in the Cave.

IN MEMORIAM

GEORGE LUSCOMBE

Honorary degree recipient George Luscombe, a director, producer and playwright considered one of the fathers of the alternative and experimental theatre movement in Canada, died Feb. 5 in Toronto at the age of 72. Founder of Toronto Workshop Productions, he was a sessional instructor in drama at U of G and was awarded an honorary doctorate of laws in June 1996. The U of G Library houses archives from Toronto Workshop Productions, which folded in 1989 after 30 years.

KERRY HIGGINS

Kerry Higgins of Agincourt, a second-year student in women's studies, died this month at the age of 20. She is survived by her parents, Bruce and Sharon, a sister, Laura, and a brother, Graham. Memorial funds have been established with the Canadian Cancer Society, the Princess Margaret Hospital Foundation and the Brain Tumour Foundation of Canada.

THE HOUSE THAT RRSPs BUILT

"We are indoctrinated in Canada that we must achieve the goal of home ownership to be successful."

BY JANE LONDERVILLE

I BOUGHT AN OLD HOUSE in downtown Guelph when I moved here five years ago. Although this has kept the snow and rain off my children's heads (at least after I got the new roof), I don't consider this asset we live in one of the star performers in my investment portfolio. Owning real estate does not have all the fringe benefits it had in the 1970s, when the real cost of owning was negative once inflation was factored into the calculation.

Still, we are indoctrinated in Canada that we must achieve the goal of home ownership to be successful. Our parents worked hard to achieve this goal, and those who bought in the 1950s and 1960s now have an asset worth many times more than they paid for it — one that can be converted into retirement income, if they're willing to move.

The federal government also promotes home ownership. Last year, Ottawa made changes to two housing programs that make it "easier" for people to buy homes, either by reducing the required down payment or by allowing them to use savings designated for retirement as their down payment.

What used to be called the first-time buyers' program is now referred to as the five-per-cent-down program because it is now open to all house purchasers, even those selling one home to buy another. This program requires that buyers save only five per cent of the cost of the house they wish to purchase; the rest is available through a mortgage loan insured by Canada Mortgage and Housing Corporation (CMHC). The insurance fee for these mortgage loans was raised from 2.5 per cent of the amount borrowed to 3.75 per cent.

The second program modified last year was the home buyers' plan (HBP), which began in February 1992. It allows first-time buyers to withdraw up to \$20,000 from their RRSP as long as they bought a house to live in, in Canada. Couples could each take advantage of the plan, giving them access to \$40,000.

The HBP requires that the money removed from the RRSP be repaid over a 15-year period. Any money not repaid on time is subject to income tax. Since the program's inception, 650,000 Canadians have borrowed from their retirement funds to buy a home, withdrawing a total of \$6.2 billion. Of all first-time buyers in 1996/97, 37 per cent used the plan. The intent of the program is to make home ownership accessible to people who have enough income to afford a mortgage loan payment but not enough savings for a down payment.

What are the implications of accessing one or both of these programs? Suppose that at age 30, Samantha takes advantage of the HBP and withdraws \$15,000 from her RRSP account, which she has saved over the past five years, to buy a house worth \$150,000. She repays her RRSP \$1,000 a year as required, starting two years after she buys the house. She expects to earn, on average, eight per cent on her RRSP investments from now until she retires at age 60. At retirement, she will have \$77,000 less



in her RRSP than if she did not buy the house. The house would have to be worth about \$240,000 to make up this difference. Essentially what she has done is take funds that were invested at a guaranteed rate or in a diversified portfolio of investments and gambled that one asset (her house) would perform as well. And this assumes that she makes her repayments to her RRSP according to schedule.

The first repayments under the HBP were due to be reported on the 1995 tax forms. Those who did not make their contribution, or who did not fully repay what was owing that year, represented one-third of the total. Some 76,000 people paid nothing back to their retirement plans that year (a total of \$21 million). The figures for the 1996 tax year are at least as bad. Of the 300,000 who were to repay something, 97,000 paid nothing; \$62 million of the \$271 million owing was not repaid. If Samantha finds she can't afford to repay her retirement fund, she will have \$150,000 less at retirement.

Suppose she was paying rent of \$750 a month for a two-bedroom apartment before moving. Her new mortgage payment is \$889.63 at current market interest rates of 6.2 per cent. In addition, she has extra utility costs, insurance costs, property taxes and maintenance expenses that she did not have while renting. It's quite possible that come April, she will not have the \$1,000 necessary to repay what is owing to her RRSP.

It's actually worse than this. For the past five years, Samantha has put an average of \$3,000 a year into her RRSP.

Those taxpayers who are not repaying their HBP are also not making new contributions. If Samantha carried on contributing at past levels, she would have a total of \$500,000 at age 60 in her RRSP. If she can't afford to do this after buying, the house would have to appreciate astronomically to make up for this shortfall.

The scenario could be even more dramatic — Samantha can use the five-per-cent-down program! The criteria of the HBP require you only to buy a house; you don't actually have to use the withdrawn funds as part of your equity. She could have a down payment of \$7,500 and use the other \$7,500 for a car or a trip to the Bahamas without paying tax on it. Because her down payment is smaller and because the mortgage insurance fee paid to CMHC for a 95-per-cent mortgage was raised to 3.75 per cent last year, her monthly mortgage payment is now \$963.56 a month, over \$70 more than if she puts the full amount withdrawn into the house and over \$200 more than she was paying in rent.

For most households, the monthly costs of home ownership are higher than what their rental costs were. The lending criteria used by banks and trust companies allow borrowers to spend 32 per cent of their gross income (not take-home pay) on their mortgage loan payments and property taxes. People making their first foray into buying a home will typically find their budget stretched to the limit (or beyond) if they borrow as much as their lender allows. There is no room for job layoffs, maternity leave or unexpected car maintenance.

Current mortgage interest rates are at 40-year lows. Borrowers using the five-per-cent-down program must have a three-year term or longer. Suppose in three years, interest rates are nine per cent, not outrageously high compared with historical standards. Samantha's payment is now \$1,224 a month if she used the five-per-cent-down program, almost a \$300 increase from when she bought the house. Salaries have certainly not been increasing at this rate in recent memory.

HBP users are young (half of those with instalment payments due in 1995 were aged 30 to 39) and many have moderate incomes (one-fifth of those with instalments due had incomes under \$20,000 and one-third had incomes between \$20,000 and \$39,999). The insurance fee for 95-per-cent mortgage loans was increased by 50 per cent because defaults were so high under the program. One has to ask if households using these programs were made better off. The financial and psychological costs of foreclosure are astronomical. We won't know the full impact for another 30 years, but when this age group retires, they may regret the decision they made to buy a house with a minimal down payment borrowed from their retirement funds.

Prof. Jane Londerville is a faculty member in the Department of Consumer Studies and teaches in the B.Comm. housing and real estate management program.

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Answers to OAC 125 Quiz Published Jan. 27:

- 1 - Wm. Reek; 2 - Massey Hall; 3 - Year '49 BSA; 4 - in the outdoor MacKinnon quadrangle; 5 - a plaque in Johnston Hall and in the Textiles Building; 6 - on the front campus; 7 - 1931; 8 - Johnston Portico; 9 - C.A. Zavitz; 10 - Nulla Dies Sine Linea; 11 - George III; 12 - Creelman; 13 - professor of agriculture; 14 - Bursar Hall; 15 - across Smith Lane from OVC; 16 - sheep barn and President's coach house; 17 - a seed cleaning plant; 18 - drumlin; 19 - 1953-54; 20 - Dundas Road; 21 - George Creelman; 22 - Frederick Stone; 23 - quasiquintennial; 24 - same as 4; 25 - J.D. MacLachlan.

WINDOW ON THE WORLD

A childhood dream of becoming a flying missionary didn't get off the ground, but Ab Moore's alternative routes have taken him around the globe

BY LORI BONA HUNT

AB MOORE GREW UP watching the world pass through his parents' living room. His father was a pastor, and missionaries from all over the world — China, India, Africa — would stay in the Moores' home when they came to town.

As a child, Moore would sit on the living room floor and listen to the missionaries share their adventures. "I was captivated by the stories they would tell, just fascinated," says Moore, a retired faculty member in the School of Rural Extension Studies. "My early ambition was to be a missionary in Africa, but I was also interested in flying. I wanted to be a pilot — a missionary with a plane."

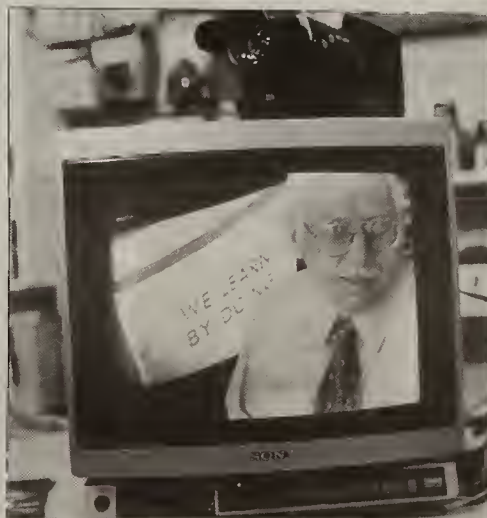
Moore did make it to Africa and 40 other countries, but not by way of the mission field or his own airplane — a few things got in the way of those plans. No, it was television and his job at U of G that allowed him to see the world.

It's a long story, but a good one. Moore sat down to tell it to me recently in his Guelph home. He had just wrapped up a year-long stint as acting director of U of G's Centre for International Programs (CIP), filling in for director Prof. Jim Shute, who was on research leave. Prior to that, Moore had worked for U of G since 1972 as director of Audiovisual Services and chair of the Department of Rural Extension Studies, retiring in 1995. But his story begins a couple of decades before arriving in Guelph, with his dreams of wanting to be a missionary and a pilot. Moore got his pilot's licence while he was still a teenager, and he even bought and fixed up an old Tiger Moth airplane. "I thought maybe I'd be sent to a mission field where I needed to fly a plane," he says with a smile.

He started his theological training at Emmanuel College, but in 1952, three years before he was to be ordained, he contracted polio. He was 21. "I was in poor physical shape, but I survived it. Most people didn't." The polio left him with partial paralysis on the left side of his face and a left eye that does not function properly. His missionary plans and dreams of flying came to an end. "So I settled for being an ordinary minister," he says.

"You were never ordinary," his wife, Alice, calls in from the next room. Moore smiles. "Well, I meant I wanted to be a missionary with an airplane, and it never panned out. So I just had to do things differently."

Moore finished his theological training and was ordained in 1955, then spent nine years as a parish minister for the United Church of Canada. While a pastor, he began doing audiovisual



work for various church-related events and programs. Eventually, his work on the side began to overwhelm his pastoral and family duties. He had to make a choice. His desire to spread knowledge won out, and he began furthering his education. He commuted from his home in Rockwood to Syracuse University, where he obtained a master's degree and PhD. And he began to look at audiovisuals, television and related technology as a way of educating more people and in different places.

"I remember that I hated school; I thought it was boring. What excited me was anything visual. The world was changing, technology was changing. I started to think about ways of using audiovisuals to increase the level of learning. I figured I could show people things better than I could tell them."

In 1964, Moore left his congregation and took a job teaching at Sir George William University. Eight years later, he came to U of G to head the new Audiovisual Services. He remembers the strong opposition television and video received from some professors. "We were perceived to be going against the grain. I re-

call one professor, in particular, who every time we met used to rib me as the 'director of artificial dissemination.'"

His work with audiovisuals is what eventually took Moore to the countries he longed to see as a child. He began studying distance education and the role technology could play. He took extra courses in Scotland and Australia and helped get audiovisual programs going in Thailand and Malaysia. He was on Guelph's faculty of extension education, which later became the Department of Rural Extension Studies, and was named the department's first chair in 1985. That job took him to even more parts of the world. He also became involved in international projects through the Rotary Club of Guelph.

As often as possible, Moore travelled with his family. His three children had paper routes and saved money so they could go with their parents to places like Europe. They would bring souvenirs back from the places they visited, and many of them still adorn the family home. Almost always, they returned with new international connections and many of the people they met abroad would eventually make it to Guelph for a visit. They always stayed with the Moores. On one occasion, two international students arrived at U of G only to find their housing plans had fallen through. They ended up living with the Moores for more than two years. Both those students earned doctoral degrees, are married with families and still live in Canada. Each has a child named after one of the Moores — one is called Albert (Moore's full name) and the other, Alice.

After hearing this story, I look around Moore's living room and think about something Isobel Landers, the executive assistant at CIP, once told me. "The entire world has stayed at Ab's house," she said. I tell Moore this, and he laughs. "Well, I guess that is true, but everyone I know who is involved in international programs is the same way." He starts rattling off a list of colleagues who also have open-door policies when it comes to international visitors.

"That's just the way it was in my childhood," he says. "When missionaries and people working for the church travelled, they never spent money on hotels; they always stayed in people's homes. This is how I understood life to be — people are always welcome. And that's the way it's always been in my home. I remember a time when my daughter didn't sleep in her bed for four months straight because we had so many visitors."

Working Group Examines Impact of Double Cohort

Phase 1 involves cataloguing issues and questions that must be addressed to assess the University's ability to accommodate an increase in demand

The Council of Ontario Universities (COU) estimates that demand for Ontario post-secondary education could increase by as much as 53,000 spaces beginning in 2003 as a result of the double cohort, a byproduct of the restructuring of the Ontario high school system and the elimination of Grade 13, anticipated population growth and increased participation rates.

Although it's not certain Guelph will be able to accept additional students, to position the University for a timely decision in response to the growth in demand, careful consideration must be given to the resources needed to restore the quality foundation of the University lost in the recent cuts, as well as the resources needed to fund increased intake. Other related questions involve

the effects of an infusion of new students on class size, laboratory and classroom space, residences and the quality of student life and services. These are the issues being examined by the Double Cohort Working Group appointed by president Mordechai Rozanski to advise the University on the implications for U of G.

This study is tied to the COU "Meeting Expectations" project, which seeks to increase base public funding for universities. It will also help anticipate possible actions by government.

"Our mandate at this stage is to begin framing the issues and asking a lot of questions," says working group chair Prof. Ken Grant, assistant to the president. "First, we must consider where we want to be as an institution not just in 2003, but also in 2010,

when COU data indicate that the permanent increase in undergraduate and graduate enrolment will be more than 44,000 if one takes into account participation rates and demographic trends. Do we want to retain our character as a highly residential and learner-centered mid-sized university? How many additional students should we admit from the perspective of accessibility to our academic programs? And what do we need in physical and human resources to accommodate this increase while preserving quality? It is imperative that the government begin to increase its investment in post-secondary education to deal with both the inadequate funding of current operations and the anticipated future growth in enrolment."

Other members of the working

group are registrar Chuck Cunningham; Darlene Frampton, director of Communications and Public Affairs; undergraduate student Dee Madden; Garry Round, director of Facilities and Hospitality Services; CBS dean Robert Sheath; Brian Sullivan, associate vice-president (student affairs); and Brenda Whiteside, academic assistant to the provost.

The group is expected to complete Phase 1 of its mandate — cataloguing the issues and questions that must be addressed to assess the University's ability to accommodate an increase in demand — by mid-March.

One factor that is quickly becoming clear to the working group is that the double cohort will not be just a "blimp on the radar screen" or a "bubble" that can be accommodated by temporary measures, says Grant.

Increasing university participation rates and demographic trends like the population bulge attributed to the baby-boom echo could mean that the pressure for enrolment growth will occur until 2015. Further complicating the issue is the fact that increased demand is occurring at a time when 75 per cent of full professors in Ontario are over 50 and nearing retirement age in unprecedented numbers. And physical infrastructure is aging to the point that deferred maintenance is currently about \$60 million.

Phase 2 of the working group's mandate will involve discussions to guide Guelph's response to the double cohort and demographic trends.

For a discussion of the double cohort issue as part of the COU "Meeting Expectations" project, see the COU report on pages 6 and 7.

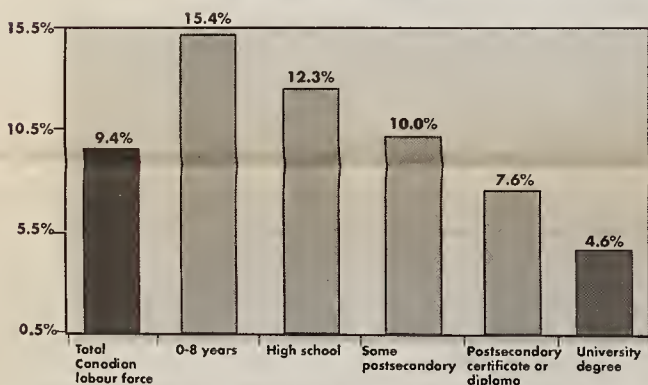
PREPARING FOR TOMORROW

Ontario University Participation Rates



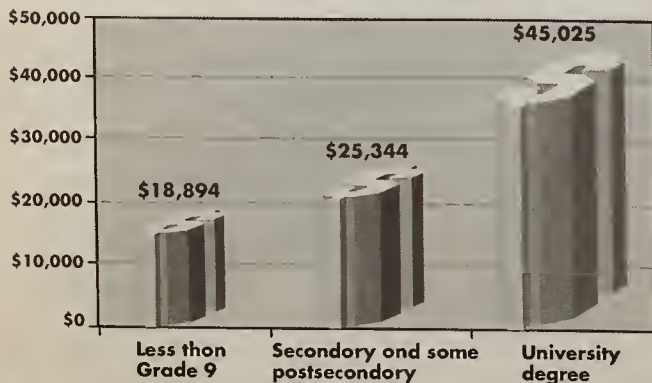
Ontario citizens' rate of participation in university education has been increasing.
Based on full-time enrolment (undergraduate and graduate) as a percentage of total population aged 18 to 24.

Unemployment Rates by Educational Attainment



A university degree leads to better employment prospects than any other form of education.
Based on Canadian statistics for 1996.

Average Income by Educational Attainment



A university degree commands the highest average income among types of education.
Based on Ontario statistics for 1995.

Double Cohort: Worrisome Prospect

BY SUSAN BLOCH-NEVITTE

DOUBLE COHORT. Preface it with "decaf" and it sounds more like a new coffee, one that nonetheless is keeping a lot of people awake at night.

A byproduct of restructuring in the Ontario high school system, the double cohort results from the elimination of Grade 13 by the year 2003. An unprecedented surge in post-secondary applications and enrolments could ensue as many of the last of the OAC students and the first of the Grade 12 students simultaneously come knocking on the doors of colleges and universities.

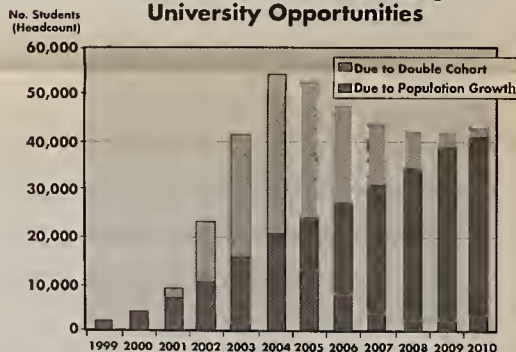
Making the brew even more potent is the fact that no one really knows yet what the numbers will be.

years of the new millennium, but it's still unclear just how much.

The Council of Ontario Universities (COU) estimates that as many as 53,000 additional students could be seeking university opportunities by 2004 — a figure that combines the double cohort and population growth among the 18-to-24 age group. Assuming some sort of surge is just around the corner, the question facing post-secondary leaders and the provincial government is how the surge will be accommodated while protecting access and quality.

The Ministry of Education and Training has assembled a planning group to begin getting a handle on the numbers and strategies for coping with the double cohort. Representatives of

Additional Students Seeking University Opportunities



Demand for an Ontario post-secondary education could increase by as much as 53,000 spaces over current enrolment of 227,800.

Figures based on projected demand for full-time enrolment.

Starting with next fall's crop of Ontario high schoolers, students can opt for the last of the five-year curriculum or an accelerated four-year program. Depending on what the students choose, the impact of the double cohort could be spread over several years or hit all at once.

In addition, students, parents and teachers are being asked to get an earlier start on planning for life after high school. The Ontario government has introduced "streaming" into the high school curriculum, where core courses will have either an academic or applied focus in Grades 9 and 10 and a university, college or work focus in Grades 11 and 12. Both educational reforms are destined to have an impact on student participation levels in Ontario universities by the first

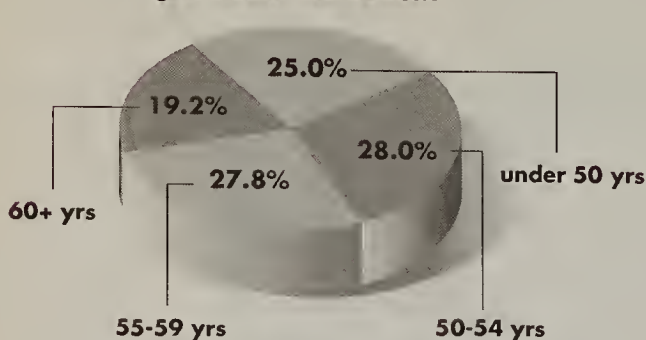
the ministry, colleges, universities, the Association of Colleges of Applied Arts and Technology of Ontario and COU are meeting monthly and hope to have preliminary recommendations to the ministry by April 1999.

Among the issues they are exploring are enrolment patterns throughout the post-secondary system; institutional resource constraints, including faculty, libraries, labs and ancillary space such as sports facilities; the potential of distance learning and new information technologies; alternative class scheduling options such as week-ends and expanded summer school; and current and projected institutional capacity.

Robert Prichard, chair of COU and president of the University of Toronto, views the double cohort as an opportunity to create a legacy of reinvestment

THROUGH HIGHER EDUCATION

Age of Ontario's Full Professors



75% of the full professors at Ontario universities are over the age of 50.

Based on statistics for 1996/97.

in the system. But he acknowledges the risk of the double cohort being perceived as merely a temporary problem, one that merits only temporary attention.

"Temporary personnel, facilities and support negate long-term planning and building on strengths," says Prichard. "We should have a strategic objective of using the double cohort as an occasion to invest in enhancing the quality of the university experience across Ontario."

Ontario ranks dead last among the 10 provinces in university operating grants per capita. In Prichard's view, new funding based on the double cohort could substantially improve that ranking if the funding were to be permanent, regardless of whether enrolment retreats after the double cohort bulge passes through the post-secondary system.

"During the peak period, we would be preserving quality and then see a modest appreciation in quality through increased resources per student in the latter years," he says. "That would be a very desirable outcome."

Faculty renewal, already a priority at Ontario universities, assumes greater urgency in the face of the double cohort. COU estimates that thousands of new faculty will have to be hired just to keep pace with current enrolment. According to COU figures, the ratio of students to faculty has increased by 25 per cent over the past decade. At a current rate of 21 to one, Ontario universities would need 2,400 new appointments just to restore the faculty complement to where it was a decade ago.

Prichard says universities should be expanding their teaching complement over the next two to three years. "A delay in hiring until the onset of the double cohort will see demand outstrip the available supply of new faculty."

The ministry's working group will also have to grapple with an "echo" double cohort some two or four years after the enrolment bulge when universities can also expect increased demand for places in first- and second-entry professional programs.

Graduate and professional programs may not be top of mind yet within the double cohort working group, but universities with significant enrolments in postgraduate programs are expected to keep the issue alive.

While the double cohort is front and centre within the ministry, university leaders are also encouraging the government not to lose sight of the other important public policy objectives such as enhancement and maintenance of research infrastructure and support, and effective mechanisms for student financial aid and debt reduction.

Ratio of Students to Full-Time Faculty

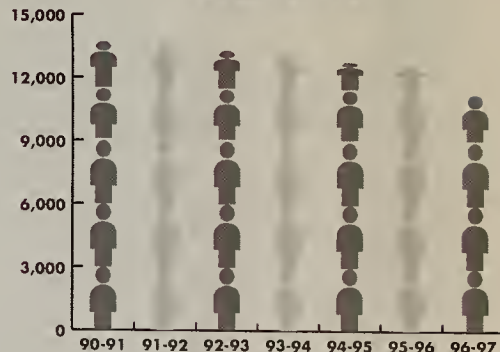


Prichard says Ontario's universities need the opportunity to develop their own responses to the new post-secondary environment.

"In a differentiated university system with different combinations of quality and cost, a one-size-fits-all approach will not likely work well. Each university should be challenged to think systematically and strategically about how it might contribute on its terms to the challenges of the double cohort and longer-term demographic challenges."

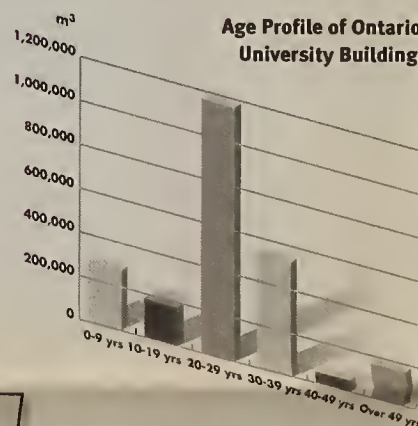
Susan Bloch-Neville is the director of public affairs at the University of Toronto and a member of the Ontario Universities' Public Affairs Council.

Full-Time Complement of University Faculty



The number of full-time faculty employed at Ontario universities has fallen by almost 2,000 in the past seven years.

Age Profile of Ontario University Buildings

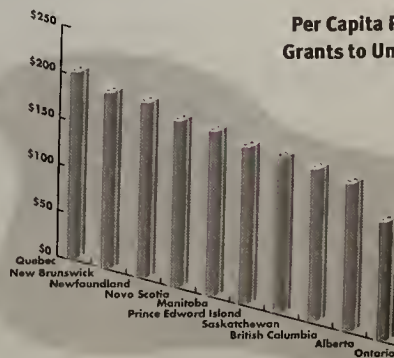


The physical infrastructure of Ontario universities is aging (the average building is now 28 years old) and requires constant upkeep and renewal. The cost of deferred maintenance rises by \$60 million to \$80 million each year.

Based on statistics for 1995/96.

A student-to-faculty ratio of 21 to 1 now exists at Ontario universities — a 25% increase over the past decade.

Per Capita Provincial Operating Grants to Universities in 1997/98



Ontario universities have been losing provincial operating grant support to the point where they receive the lowest per capita funding among the provinces — 10th out of 10.

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New Director of Business Development Seeks to Expand U of G Partnerships

Building on biotechnology a key to collaborative business success

LINKING U of G's strategic technological focus with its commitment to a global perspective will help build revenue-generating partnerships, says the University's new director of business development.

Connie Hearty, who has served as the business development officer for various research-intensive institutions, including the Hospital for Sick Children and, most recently, the University of Toronto, is enthusiastic about U of G's strengths.

She says Guelph's broad spectrum of agricultural and veterinary science research serves as a natural vehicle for developing innovative business opportunities. In particular, she believes the University's global reputation, applied research infrastructure and perspective are valuable resources for Ontario-developed technologies.

Guelph's well-established connections with industry and its entrepreneurial spirit (U of G royalties reached the \$1-million mark this year) serve it well, says Hearty.

"I hope to further the opportunities for U of G by linking existing research expertise and industrial needs," she says. "The resulting collaborative research agreements, patent opportunities, licence agreements and novel commercial opportunities will generate revenue for the University and help attract others to Guelph."

In applying her diverse collaborative business development experiences (she has 18 years' experience in the field of biotechnology) to U of G, Hearty sees overlapping areas of technology development as a particular opportunity. For example,



Connie Hearty hopes to further business opportunities for U of G by linking existing research expertise and industrial needs. PHOTO BY MARTIN SCHWALBE

bioinformatics — the use of computer science and mathematics to discover and sequence genes — could directly benefit Ontario's agri-food industry. Establishing strong collaborative partnerships could help harvest Guelph's potential in this growing field, she says.

"Many technologies from previously unrelated fields of research can now be overlapped to yield impressive results. It will help us get where we want more quickly than ever before."

Future commercializations would build on past successes, including Nanodesign (a molecular modelling company designing new pharmaceuticals) and Gensel (a

novel livestock sperm-sexing company).

Hearty urges industry to work co-operatively with university researchers. Faculty need the freedom to conduct their research without strict guidelines, she says. She also stresses the importance of balancing industry-sponsored research with basic discovery research at U of G.

For those researchers who welcome industrial collaboration, the Business Development Office can serve as a valuable resource, says Hearty. More emphasis will be placed on marketing the expertise and research results that currently reside at Guelph. In addition, efforts will focus on the creation of techni-

cal platforms — like crops that are not only drought-resistant, but are also cold-tolerant and have higher yields — that will have the potential to produce multiple products or solve multiple problems. Other initiatives she's planning include round-table discussions with targeted industry groups and research/industry days.

Researchers who want to be included on a business development contact list can reach Hearty in the Office of Research, Room 213 of the Reynolds Building. She welcomes inquiries at Ext. 6471 or by e-mail at chearty@uoguelph.ca.

BY AMINA ALI
OFFICE OF RESEARCH

Ottawa Bolsters Funding Agencies

Continued from page 1

may open up funding opportunities for people like her whose research is on the application level of the health-care system. Previously, such funding was limited, she says.

Here are some highlights of the 1999 federal budget:

- CFI: The additional \$200 million in 1999 has the potential to trigger an additional \$300 million from other funding partners. CFI was formed in 1997 by the federal government to address an urgent need of Canada's research community. Investments are made in partnership with all levels of government and the private and voluntary sectors. Its work focuses on health, the environment and science and engineering.
- NSERC: An additional \$25 million a year for three years.
- SSHRC: A \$15-million increase over the next three years.
- MRC: The agency will be incorporated into CIHR. MRC will receive \$27.5 million of the first \$50 million that is to be shared among CFI, NSERC, SSHRC, the NRC and Health Canada.
- Centres of Excellence: An additional \$90 million to support ongoing efforts and eight new Centres of Excellence. The centres facilitate the transfer of knowledge between researchers and the private sector.

BY LORI BONA HUNT

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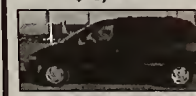
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Two Students Win Giuliani Award

Scholarship honours memory of former U of G student

HEATHER FARR, a third-year student in mathematics and statistics, and Jason Dunkerley, who began general studies in 1997, have been selected to receive this year's Tara Lynn Giuliani Memorial Award for students with disabilities.

The \$500 scholarship, given annually since 1995, was established by the Burlington, Ont., family of Tara Lynn Giuliani, a former Guelph student who lost her sight a few years before her death at age 25 from juvenile diabetes.

Giuliani's father, Rick, says that he and his wife, Justine, and their children Natasha and Scott "are absolutely thrilled with this opportunity to recognize two visually impaired students. It's exactly what Tara would have wanted and allows us to have Tara live on through the good works of students and of the University of Guelph."

The scholarship is awarded to applicants registered with U of G's Centre for Students with Disabilities (CSD), particularly those with visual impairments. It recognizes not just academic grades but involvement in on- and off-campus activities as well. "We're looking for things that show the applicants have a concern for their community," says Trudy Smit-Quosai, adviser in CSD, where more than 400 students are registered.

Affected at age eight with a rare hereditary disorder that left her with only peripheral vision, Farr has served as a peer helper or tutor for several U of G students with disabilities, including Dunkerley. Noting that many of her friends on campus also have visual impairments, the Stratford native says: "My roles as peer helper and as friend intermix."

In 1997, she received the R.A. Fisher Statistics Scholarship for the highest average in her two Level 1 statistics courses for students in physical sciences. Having spent two co-op work terms with Statistics Canada in Ottawa, she thinks she might apply there for a permanent job after graduation and pursue actuarial studies.

Dunkerley, a native of Hamilton who attended high school in Brantford, was born blind with retinitis pigmentosa, as were his two brothers.

A longtime track and field runner and member of a running club in Cambridge, he belongs to U of G's varsity track team. During competition as a member of Canada's blind team at the world track and field championships last summer in Madrid, he won the 1,500-metre race and finished fourth in the 800-metre. He'd like to reach the provincial inter-university championships, as well as the Paralympic Games to be held next year in Sydney. He runs accompanied by an able-bodied guide.

His interest in Europe piqued by last year's visit, Dunkerley is taking Spanish and German and plans to pursue European studies. Although he entered Guelph with thoughts of becoming a journalist, he now says he might consider graduate studies and perhaps become a teacher.

Both Farr and Dunkerley have high praise for CSD and its services.

"We're lucky to have a good system here at Guelph with the Centre for Students with Disabilities," says Dunkerley. "That was one of the reasons I was interested in coming here."

BY ANDREW VOWLES



MOVING HOME

After 2 1/2 years of being scattered in various locations across campus, members of the Department of Food Science are beginning to return home to the newly renovated Food Science Building. Among the first arrivals were department chair Prof. Rickey Yada and administrative assistant Margaret Timmins. It's expected the move will be completed by mid-March.

PHOTO BY MARTIN SCHWALBE

BE INFORMED • BE HEARD

TWO TOWN HALL MEETINGS HAVE BEEN PLANNED

The first meeting is open to all members of the University Community, but will be of specific interest to students

Wednesday, March 3, 1999 • 5:30 to 7 p.m. • University Centre courtyard

Presentations by the chair of EMC and student representatives on

ENROLMENT, TUITION and FINANCIAL AID

AND

Tuesday, March 9, 1999 • 5:30 to 7 p.m. • Room 117, MacKinnon Building

Presentation by John Miles, assistant vice-president (finance), on

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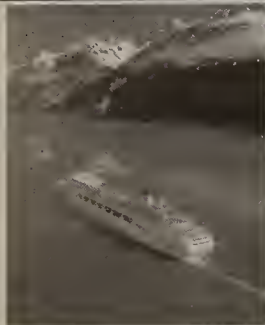
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SENATE REPORT

Continued from page 2

subcommittee of the Senate Library Committee (SLC).

In a document presented to Senate last March, the allocations subcommittee reported that the University's current acquisitions allocation formula is not adequate for future library needs. In a second consultation document released in October, the subcommittee examined the criteria, objectives and principles originally set out and, in the context of different models, proposed the possibility of a more centralized system for both journal and book/multimedia resources.

This access allocation model has been discussed widely by departmental library representatives, chairs, directors, students, interdisciplinary program co-ordinators

and deans.

SLC chair Prof. David Noakes, Zoology, told Senate that the access model strives to improve access to library resources and manage the costs of materials, especially journals. Under the model, one large budget pool would be used to acquire all journals and journal articles, with provision made for a transition among four main modes of delivery or access (electronic journals, paper copies, electronic delivery of articles and traditional document delivery), depending primarily on the cost per use of a journal title. A second large budget pool would be used to acquire books or multimedia using existing collections policies to develop subject profiles for approval plan ordering. Noakes said that effective liaison

among librarians, faculty and students will become increasingly important to the management and enhancement of library resources.

The allocations subcommittee will review general operation of the model annually and report to SLC. The entire allocation mechanism will be reviewed by SLC in 2002.

Chief librarian Michael Ridley noted that the access model moves heavily towards electronic access, which will allow many people to use resources simultaneously and will increase access to heavily used journals.

In response to a student senator's question as to whether the access model took into account the impact of the double cohort of students expected in 2003, Rozanski informed Senate that a working group has

been established on campus to explore all issues surrounding the double cohort (see story on page 4). Provincially, the situation is also under study by the Council of Ontario Universities and the Ministry of Education and Training, he said (see related story on page 6).

AWARD RENAMING HONOURS CHANCELLOR

Senate voted unanimously to rename U of G's Medal of Distinguished Service for chancellor Lincoln Alexander in recognition of the significant contributions he has made to the University. The medal, approved by Senate in January to recognize outstanding contributions to the functioning, academic life and character of U of G, will be

known as the Lincoln Alexander Medal of Distinguished Service. Alexander has served as the University's chancellor since 1991.

SELECTION COMMITTEE NAMED FOR ASSOCIATE VP

Senate approved the appointment of a seven-member selection committee for the position of associate vice-president (academic). Chaired by provost Iain Campbell, the committee consists of CBS dean Robert Sheath; Prof. Ward Chesworth, Land Resource Science; Prof. Susan Evers, Family Relations and Applied Nutrition; Prof. Dana Paramskas, Languages and Literatures; Virginia Gray, director of the Office of Open Learning; and BA student Chris Newell.

Student Competitions Are a Highlight of College Royal

Continued from page 1

while student clubs entered exhibits in horticulture, dairy, poultry and agronomy. Within the first few years, Macdonald Institute and OVC students began to enter, and the show was moved to early March to give students more time for planning.

The open house soon attracted off-campus spectators, many of them graduates who brought their families back to campus to see what was going on at their alma mater. By 1936, College Royal was a two-day show, complete with speakers, skits and contests in everything from sheep shearing to potato peeling.

The first College Royal Queen was chosen in 1951 and the last in 1975. Since then, students have

elected a celebrant to help promote campus participation in College Royal competitions and events.

The 1999 celebrant is Robert Hunter, a fourth-year Aggie who says his job is to infect people with the anticipation of College Royal.

"Those who don't get involved in College Royal don't really find out what U of G is all about," he says. "They don't get to know the whole university. I'm majoring in agronomy, so I don't normally get to see what's going on in my own college in animal science or food science or in OVC, Arts and the other colleges. College Royal is an opportunity for us all to widen our knowledge of what's available at this university." Hunter's advice comes from ex-

perience. He's been a College Royal participant since his first year when he played the role of Peter in the Curtain Call production of *Jesus Christ Superstar*. In his second year, he got involved in the square dance competition and won first place with his class team. Last year, he added a performance in the pancake flip. "We didn't win, but we were very impressive," he says.

This year, he represented Agriculture Challenge in the celebrant competition, but he's also looking forward to square dancing for his OAC '99 class. "It's a great event for students," he says, and judging from the usual crowd of spectators, a favourite among off-campus visitors. Student competitions are always

a highlight of College Royal, and this year many of the popular events will come together for a Super Thursday event March 11. The egg toss, server competition, milk chug and cookie-baking and pie-throwing contests will all take place that day in the twin-pad arena. The arena will also host the traditional livestock show Saturday and the dog show Sunday.

Some of the weekend events that are sure to interest campus visitors are the cat show, the Royal showcase, a photography contest, the logging and tug-of-war competitions, a lecture series and a spelling bee.

This year's Curtain Call production is *Tommy* and runs March 11 to 13 at 8 p.m. at War Memorial Hall.

"There will be lots for children to

see and do as well," says Nibourg. "The new Old Macdonald's Farm, the petting zoo and the chemistry magic show are always well attended by children of all ages."

The College Royal committee is also preparing a new College Royal history book and a commemorative poster.

Throughout its 75 years, College Royal has remained true to its original purpose as an event to encourage student participation in campus life and a way to showcase campus academic programs. It is today the largest student-run open house at any Canadian university and draws 20,000 visitors each year.

BY MARY DICKIESON

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Evenflo Ultra 1 infant/toddler car seat, Cosco infant/toddler car seat, both in excellent condition, manuals; Evenflo Happy Camper, send e-mail to stu@pr.uoguelph.ca.

Kerosene heater, used four times, 8,600 BTU, 20-litre fuel tank, 763-1236.

Chinese orchid, clivia, 823-0479 or send e-mail to ysong@uoguelph.ca.

Leclerc tapestry loom, 60 inches, wire heddles, three reeds, many other accessories, excellent condition, Ext. 6173 or send e-mail to spfeiffer.ns@aps.uoguelph.ca.

Five-bedroom house with finished basement, laundry, deck, dishwasher, College Avenue, Peter, 837-1300.

1993 Buick LeSabre Limited, one owner, loaded, 120,000 kilometres, 787-5106.

Large mahogany boardroom table with maple trim, custom made, can be configured in triangle or U shape, 767-5003.

Four-bedroom brick bungalow in

north end, two baths, large eat-in kitchen with dishwasher, finished basement with bedroom, rec room with wood-burning fireplace, newer roof, large yard, close to schools, 821-1702 or send e-mail to mdillow@uoguelph.ca.

1987 GMC Safari, 821-1493 after 6 p.m.

Three-bedroom 1,450-square-foot bungalow in Sauble Beach in exclusive residential area, two baths, high-efficiency gas, central air/vacuum, air exchange, deck, near beach, hiking/snow trails, school, can be rented for \$800 a week in summer, Rita, 519-534-2689.

Executive four-bedroom home in Hales Manor Estate, main-floor laundry, fireplace in family room, ensuite, large basement apartment, 75- by 140-foot lot, three-car drive, on cul-de-sac, no agents, 821-8494.

Black TV/VCR stand, swivel top, storage space, two feet high, 2½ feet wide, Ext. 6580.

Soprano saxophone, Yamaha Professional YSS-62, excellent condition, 766-1988.

Saltwater aquarium, 60 gallons, filters, pump, test kit, corals, sand, cabinet, 836-2342.

Estate lot in Fox Run Estates, 1.4 acres, close to 401, 763-7569.

NEC Versa S/33 Notebook, three years old, Bill, 766-1316.

Four-bedroom home in Winnipeg on 1½ acres, family room with fireplace, games room, guest annex with large bedroom, bath and sauna, swimming pool, two-car heated garage, available mid-summer or fall, leave message at 822-0566.

FOR RENT

Two-storey coachhouse, one bedroom, den, open concept, five appliances, garden, parking, close to library, non-smokers, no pets, references required, available May 1, \$800 a month plus utilities, 836-7807 after March 3.

Furnished luxury home, 2½ baths, convenient to campus, parks and Stone Road Mall, suitable for visiting faculty, available September 1999 to May/June 2000, Ext. 2622 or send e-mail to gchapman@msnet.mathstat.uoguelph.ca.

Bachelor apartment on main floor in stone building, hardwood floors, high ceilings, large bedroom, three-piece bath, mature non-smoker, \$500 a month inclusive, available April 1, 822-5515.

Partially furnished two-bedroom basement apartment in new house, two students preferred, parking for two cars, separate entrance, \$350 a month per person inclusive, Grace, 824-4569.

Furnished three-bedroom home in Hespeler, 15 minutes from campus, available for one year beginning Sept. 1, \$800 a month plus utilities, 654-9350 evenings.

Water-view cottage close to sandy beach in Sauble Beach area, suitable for four people, TV/VCR, equipped kitchen, propane barbecue, non-smokers, \$450 a week, Lynn, Ext. 4157 or 763-1236.

Furnished house for visiting professor or foreign student to share with owner, parking, garage, close to bus, \$500 a month inclusive, 824-0950.

AVAILABLE

Will do manuscripts, manuals, dictating, including proofreading, laser printing, 836-1775.

Experienced technical writer/editor for documents, newsletters, will copy edit, proof, tutor for writing courses, close to campus, 826-0707.

Clarinet, saxophone and flute lessons by instructor in Department of Fine Art and Music, all levels welcome, Ext. 3127.

Lessons on woodwinds, strings, piano and guitar, music from Bach to rock, course curriculum tailored to individual needs, 826-9125.

Pet sitting and nursing for small and large animals by veterinarian, small-animal transport to appointments, security clearance, Janis, 766-0634.

WANTED

Spacious one-bedroom apartment in tidy, secure building for young employed female, rent up to \$500 a month inclusive, Sheri, Ext. 2906.

Two- or three-bedroom house or townhouse within 15 minutes of campus, laundry, parking, needed for late May or June 1, Antonio, 306-966-7062 or send e-mail to cruz@admin3.usask.ca.

Lawn bowls by recent retiree, Lloyd, 843-5834.

Three-bedroom home for professional couple for April 1, preferably in central Guelph, 823-9394.

Two- or three-bedroom house/townhouse close to campus for family for Sept. 1, preferably under \$1,000 inclusive, Lisa, 416-781-0144 or send e-mail to wyllie@interlog.com.

Country home or farm for six-year-old male Australian shepherd, Jake, 766-0200.

Three-bedroom house in mature area of Guelph for family, Ext. 2670 or send e-mail to jgraham@ath.uoguelph.ca.

Farm or farmhouse in Guelph area for responsible family of five for May 1, references available, leave message at 837-2304, Ext. 16.

Classifieds is a free service available to staff, faculty, students, alumni and retirees of the University. Submit items by Wednesday at noon to Linda Graham on Level 4 of the University Centre, fax to 824-7962 or send e-mail to lgraham@exec.admin.uoguelph.ca. For more information, call Ext. 6581.

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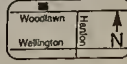
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ARBORETUM

Maple Syrup Days kick off Feb. 27 and 28 and run weekends until March 20 and 21 (March 27 and 28 if weather permits). The program also runs daily March 15 to 19. Hours are 10:30 a.m. to 4:30 p.m. Cost is \$3.50 for adults, \$2.50 for children 12 and under, and \$18 for a group of two adults and six children. A pancake breakfast will be held Feb. 27 from 9:30 to 11:30 a.m. Cost is \$2 each or \$5 per family. Bring your own plates and utensils.

Naturalist Chris Earley will lead a workshop on identifying Ontario duck species March 16 and 23 at 7 p.m., to be followed by a Sunday field trip to the Mountsberg Conservation Area April 18. Cost is \$58. Registration and payment are required by March 9. Horticulturist Henry Kock will offer two all-day workshops on "Wetlands and Woodlands" March 18 and 25 from 9 a.m. to 4 p.m. Cost is \$32. Registration and payment are required by March 4. To register for workshops, call Ext. 4110.

Theatre in the Trees presents the dinner-theatre comedy *The Second Time Around* by Henry Denker Saturdays until April 24 at the Arboretum Centre. Doors open at 6 p.m.; showtime is 8 p.m. Tickets are \$45 and are available at Ext. 4110.

ART CENTRE

The Macdonald Stewart Art Centre, the Centre for Cultural Studies and the School of Fine Art and Music are sponsoring a colloquium on "Art Practice and Social Change" in tribute to Prof. Suzy Lake, Fine Art and Music, whose work is on exhibit at the art centre until July 25. Upcoming events include a panel discussion on "Performing Photography: Art/Practice/Politics" March 2 at 11:30 a.m. in MacKinnon 114 and a talk by Toronto artists Lisa Steel and Kim Tomczak on "Media Activism" March 4 at 4 p.m. at the art centre. The colloquium wraps up March 9 with Toronto installation artist Millie Chen discussing "Negotiating Audience" at 7 p.m. in MacKinnon 114.

CONCERTS

The winter Thursdays at Noon concert series continues March 4 with tenor Glyn Evans and pianist Alison MacNeill and March 11 with the U of G Women's Choir conducted by Domenic Gregorio and the U of G Chamber Choir directed by Marta McCarthy. The concerts are in MacKinnon 107. Admission is free, but donations are welcome.

LECTURES

The Department of History presents Julie Gottlieb speaking on "The Three Faces of Fascism, The Three Faces of Eve: Women in Fascism in Inter-War Europe" March 2 at 10 a.m. in MacKinnon 308.

Third Age Learning-Guelph's winter lecture series continues March 3 with retired history professor Lew Abbott discussing "Land of the Living Dead" at 10 a.m. and Prof. John McMurtry, Philosophy, exploring "Problems, Prayers and Praxis" at 1:30 p.m. On March 10, Abbott discusses "What Went Wrong? Crucial Episodes in Russia's Long and Tragic History" at 10 a.m., and Prof. Maureen Mancuso, Political Science, considers "Ethical Issues: Canadian Politics" at 1 p.m. Lectures are at the Arboretum Centre.

OAC's 125th-anniversary Winegard lecture series continues March 5 with Sir Colin Berry of the Royal London Hospital in England discussing "Pesticides in Agriculture: Questions of Risk. Worrying More About Less" at 3:10 p.m. in OVC 1714.

NOTICES

The Human Rights and Equity Office is looking for lesbian, gay, bisexual and transgendered people interested in being interviewed about their experiences at U of G. The goal is to provide Project Vision with recommendations for improving campus life. Inquiries and participation will be confidential. For more details, call Celina Sousa at Ext. 6100.

Guidelines are now available for the Canada-Latin America-Caribbean research exchange grants offered jointly by the International Development Research Centre and the Association of Universities and Colleges of Canada. Application deadline is March 31. For information, send e-mail to Dominique Van de Maele at dvandema@uacc.ca or visit the Web site www.uacc.ca.

The Guelph section of the Canadian Institute of Food Science and Technology presents Harry Lawless of Cornell University, who will discuss "You Are What You Eat: Effects of Diet on Oral Sensory Function" March 23 at 5:30 p.m. at the Delta Meadowdale in Mississauga. Register by March 18 by calling Sandra Pitts at 836-9993 or sending e-mail to spitts@compuserve.com.

SEMINARS

The Department of Sociology and Anthropology presents Anton Allahar of the University of Western Ontario considering "The Race Relations Industry and Black Academic Entrepreneurship" Feb. 26 at noon in UC 442.

The Department of Human Biology and Nutritional Sciences graduate seminar series continues with Donna Berry explaining "Differentiation and Death of Promyelocytic NB4 Cells: Effects of Retinoic Acid and Calcitriol" March 1 and Nicholas van der Merwe of Harvard University's Peabody Museum on "Light-Stable Isotopes and Dietary Reconstruction in Archeology"

March 8. Seminars begin at 3 p.m. in Animal Science and Nutrition 141.

Prof. Brian Ferguson, Economics, is guest speaker in the Department of Family Relations and Applied Nutrition research seminar series March 2. His topic is "Income and Health." On March 9, Valerie Tarasuk of the University of Toronto considers "Food Insecurity and Nutritional Vulnerability in the Context of Food Bank Usage." The seminars are at 2:30 p.m. in FACS 103.

The Axelrod Institute of Ichthyology Loaves and Fishes seminar series continues March 2 with Istran Imre examining the "Influence of Water Velocity on Body Shape of Young-of-the-Year Brook Char" and March 9 with Matt Vijayan of the University of Waterloo discussing "Effective Fish Surgery Techniques." Seminars begin at 12:30 p.m. in Axelrod 168.

Adrian Melissinos of the University of Rochester is guest speaker in the Department of Physics seminar series March 2, discussing "Creation of Matter in Light-by-Light Scattering." On March 9, Diandra Leslie-Pelecky of the University of Nebraska explores "Disorder and Magnetism." Seminars are at 4 p.m. in MacNaughton 113.

University of Waterloo chemist Mike Chong is guest speaker in the Department of Chemistry and Biochemistry seminar March 2 at 3:15 p.m. in MacNaughton 222. His topic is "Development of Organometallic Reagents for Asymmetric Synthesis."

The Plant Biology Council presents Edward Berkelekar explaining the "Influence of Root Morphology and Hydroponic Solution Speciation on Accumulation of Cadmium by Wheat Roots" March 3. On March 9, the topic is "Elevated Atmospheric CO₂ and the Flow of C Between Plants and Soil Micro-organisms" with Donald Zak of the University of Michigan. The seminars begin at 3 p.m. in Axelrod 259.

The "Our World" series sponsored by the Centre for International Programs focuses on continuing research abroad March 3 at 6:30 p.m. on Level 2 of Day Hall.

The biochemistry seminar series features graduate student Paula Russell explaining "Structure and Function of the Nucleotide Binding Domains of the P-glycoprotein Multi-Drug Transporter" March 4 at noon in MacNaughton 222.

Next up in the Department of Animal and Poultry Science graduate seminar series is Jacqueline Bonseal discussing the "Effect of the Avian Sex-Determining Region on the W Chromosome on Sex Differentiation in *Gallus domesticus*" March 9 at 11:30 a.m. in Animal Science and Nutrition 141.

The Department of Food Science presents Prof. John Dutcher, Physics, exploring "Thermal Instabilities in Thin Films: From Pattern Formation to Rupture" March 12 at 12:30 p.m. in Food Science 241.

SYMPOSIUMS

The Guelph Classics Association holds its sixth annual Classics and Humanities Symposium Feb. 26 and 27 in the Whippetree. This year's theme is "Myth Making." The weekend features lectures, a panel discussion, a show debate by members of the Guelph Debating Society and an exhibition of student art. The symposium runs from 3 to 8:30 p.m. Feb. 26 and 9 a.m. to 6:30 p.m. Feb. 27, with a reception to follow. Registration is \$15 general, \$8 for students. For more information, visit the Web site www.uoguelph.ca/~jmurra01/symposium.htm.

A Toxicology Symposium on the theme "Forensic Toxicology: From the Crime Scene to the Courtroom" will be held March 6 at the OVC Lifetime Learning Centre. The day will feature talks on topics such as "Athletic Drug Testing" and "Toxicology and Regulation — the Role of Science" as well as poster sessions. Registration begins at 8:30 a.m. The symposium will be followed by a wine-and-cheese reception at 4 p.m. at the Whippetree. Tickets are \$10 for the lecture and reception, \$15 with lunch. For more information, send e-mail to norton@uoguelph.ca.

TEACHING SUPPORT

Teaching Support Services' training and development workshops for faculty and instructional staff continue March 11 at 10 a.m. with "HTML II: Looking Under the Hood" and at 1 p.m. with "Dealing with Students Experiencing Exam Anxiety." Full workshop descriptions are available on the Web at www.tss.uoguelph.ca. Register in advance with Helen Martin at Ext. 2973.

TSS is offering a three-part mini-series on copyright issues related to teaching and research. Topics are "An Introduction to Copyright in Canada" March 15, "CANCOPY" March 17 and "Using Copyright Materials on Course Web Sites" March 18. For more information or to register, call Ext. 2973.

On the last Monday of each month, the TSS Learning Technologies Lab is open from 1 to 3 p.m. on a drop-in basis. For faculty and staff interested in creating PowerPoint presentations or developing Web pages, support staff are available for assistance. For more information or to book additional time in the lab, call Pat Thompson at Ext. 2965.

THEATRE

Students in the drama program present *Waiting for Lefty/The Agit-prop Project*, March 15 to 19 at 8 p.m. and March 20 at 7 p.m. at the Inner Stage. The performance combines

the 1930s work of playwright Clifford Odets with a 1990s theatrical form of political protest. Tickets are \$6 and \$8 and are available at the UCbox office.

THESIS DEFENCES

The final examination of M.Sc. candidate Anthony Fishback, Zoology, is March 1 at 9 a.m. in Axelrod 265A. The thesis is "Genetic and Environmental Influences on the Spawning Time and Progeny Growth of Hatchery Rainbow Trout." The adviser is Prof. Roy Danzmann.

The final examination of M.Sc. candidate Tit Wah Hui, Chemistry and Biochemistry, is March 5 at 2:30 p.m. in Chemistry and Microbiology 370. The thesis is "Electrochemical Behaviour of Methyl Viologen Exchanged Zeolite Y (MVY) Modified Electrodes." The adviser is Prof. Mark Baker.

The final examination of Ana Rakitin, a PhD candidate in the Department of Zoology, is March 11 at 8:30 a.m. in Axelrod 265A. The thesis is "Body Size and Reproductive Success in Atlantic Cod, *Gadus morhua* L." The adviser is Prof. Moira Ferguson.

The final examination of PhD candidate Surinder Singh Sainii, Pathobiology, is March 12 at 9:45 a.m. in OVC 101. The thesis is "Molecular Immunogenetics of Bovine Antibody." The adviser is Prof. Azad Kaushik.

COMMUNITY EVENTS

The Methodist Club of U of G and the Guelph BME Church will hold a black history celebration Feb. 28 at 3:30 p.m. at 83 Essex St. Everyone is welcome.

"The Beginnings of the Guelph Public Library" is the topic of retired chief librarian John Snell at the next meeting of the Guelph Historical Society March 2 at 8 p.m. at St. Andrews Church.

Victim Services Wellington seeks volunteers to work in co-operation with police and fire services to help victims of crime, trauma or tragic circumstances. The next training session will be held in the spring. For details, call 519-323-9660 (Mount Forest).

The inaugural meeting of the Wellington Society for the Countryside will be held March 6 from 9 a.m. to 4 p.m. at Wellington County Museum. Speakers include Senator Eugene Whelan and Prof. Stewart Hilts, Land Resource Science. Register by March 1 at 1-800-265-8332.

The Lung Association is staging a "Breath of Spring" tulip campaign to raise money for lung disease research and programs. The association is taking orders to deliver tulips around the city for \$5 a bunch. The flowers will be delivered March 4, with payment due on delivery. For more information, call 822-7739.

IN THIS ISSUE

- 3 **COOKBOOK** collection has all the right ingredients for researchers.
- 3 **STUDENT** debater wins top prize at national competition.
- 4 **RENOWNED** linguist Noam Chomsky shares his thoughts with College of Arts graduates.
- 13 **ENGLISH** professor clicks on a new way to publish scholarship in the humanities.

Winegard to Speak in OAC Series

Science policy focus of talk

THE NEXT SPEAKER in OAC's 125th-anniversary Winegard Alumni Visiting Professorship Series is the man for whom the series was named — Bill Winegard, former president of U of G and former federal minister for science. Winegard will discuss "Science Policy in Canada: Who Decides?" March 24 at 3:30 p.m. in Room 1714 of the OVC Learning Centre.

The Winegard Alumni Visiting Professorship Series was established in 1975 by the Alma Mater Fund Advisory Council in recognition of the contributions of Winegard, who served as president and vice-chancellor of U of G from 1967 to 1975. During his tenure, he oversaw a period of great expansion that led to a balanced offering in the humanities, social sciences and basic sciences. His habit of walking daily between his home and office led to the path in front of Johnston Hall being named Winegard Walk. Also bearing his name is the Winegard Medal, U of G's top undergraduate convocation award.

After leaving Guelph, Winegard had a long and distinguished career in politics, serving as Guelph MP from 1984 to 1993 and Canada's first minister for science. He is currently chair of a newly established program to allocate the Premier's Research Excellence Awards and was named Officer of the Order of Canada in 1998. He is a fellow of U of G and holds five honorary degrees.



RADIATION TREATMENT EXPANDS

OVC's Veterinary Teaching Hospital has increased the availability of its radiation therapy unit, allowing the hospital to offer wider cancer treatment for companion animals. Above, OVC teaching dog Moe helps veterinary technician Cindy Stoate, left, and radiation therapist Kim Stewart demonstrate the unit's facilities. See story on page 14.

PHOTO BY MARTIN SCHWALBE

U of G Will Feel Little Impact from Y2K Millennium Bug

Committee expects applications and systems to greet new year bug-free

THE MILLENNIUM BUG will have a "minimal impact" on the University, according to an interim report produced last month by the Year 2000 Committee. "The new year will not mean the end of life as we know it," says committee chair Doug Blain, manager of Systems Technical Support in Computing and Communications Services.

The report details what has been done and has yet to be done to prepare U of G for the Year 2000 date change. Presented to Board of Governors last month, the document will also be discussed by the Information Technology Strategy Committee chaired by provost Iain Campbell.

"Overall, the University should be minimally impacted by the Year 2000 issue," says Blain. "That's the good news. It just took a lot of work to get there."

A cross-campus inventory conducted by the Y2K Committee showed that more than half of Uni-

versity areas were already Y2K-compliant. Many of the non-compliant areas are so-called legacy systems that are being replaced, such as U of G's financial, student and human resources information systems.

The committee had identified personal computers as the biggest potential problem. Indeed, most PCs were found to have a Y2K problem. But once rebooted in the new year, the computers will accept the Year 2000 date and run correctly, Blain says.

The committee expects applications and systems to greet the new millennium hangover-free, both on and off campus.

- Problems identified in physical plant have been addressed. Major external suppliers — principally banks, Guelph and Ontario Hydro, Union Gas and Bell Canada — anticipate no disruption in service.

- Laboratory and medical

equipment across campus, particularly at the Veterinary Teaching Hospital and Laboratory Services, has been tested for compliance. Minor problems will be corrected before the changeover date.

- The Office of Registrarial Services is developing contingency plans to ensure smooth registration of students returning to U of G next January.

The Y2K Committee has been working with managers to ensure that equipment and applications have been tested. The group has also advised areas across campus to develop contingency plans. Blain emphasizes that these plans are intended to address any emergency, not just problems related to the millennium bug. "Most areas already have a contingency plan, but it hasn't been formalized," he says.

Continued on page 15

Senate, B of G to Review Budget

SENATE and Board of Governors will review the 1999/2000 preliminary Ministry of Education and Training (MET) operating budget March 16 and March 25 respectively. In this issue of @Guelph, you will find major portions of the preliminary operating budget. The full document is available on the Web.

Our special budget coverage on pages 5 to 12 also includes the Enrolment Management Committee's (EMC) recommendations on enrolment, tuition and financial aid, the Senate Committee on University Planning's (SCUP) review and comments on the preliminary operating budget, and a report from the Student Budget Advisory Group (SBAG) student caucus.

EMC's recommendations and the preliminary MET operating budget are the result of months of consultation across campus. Since early February, EMC chair Prof. Alastair Summerlee has attended more than 50 meetings to discuss EMC's principles and recommendations. Meetings were held with SCUP, Student Senate Caucus, the Central Student Association, the Graduate Students' Association, Interhall Council, the Consultative Forum and SBAG, among others. Two town hall meetings were held to provide an opportunity for campus discussion and input.

Some members of the University expressed frustration with the consultative process and with EMC's recommendations. There was divided opinion on the recommended tuition increases, on the aggressiveness of some of the enrolment targets and on fee differentiation. Students appreciated that EMC has rejected fee differentiation for 1999/2000, but there was concern that EMC recommendations imply that this option will be seriously considered next year. Concern about quality and accessibility was expressed at every level of consultation, and there was overwhelming agreement that the University must continue to press for the restoration of public funding.

A full summary of comments received can be found on the consultative process Web site at www.uoguelph.ca.



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BOARD OF GOVERNORS

Overview of initial budget planning assumptions presented

JOHN MILES, assistant vice-president (finance), provided an overview of the initial planning assumptions for the 1999/2000 preliminary Ministry of Education Training operating budget to Board of Governors Feb. 25. He reported that the University is facing an overall budget shortfall of more than \$12 million — the result of a \$6.8-million base structural problem, a provision of approximately \$4 million for salaries and benefits for the University's 10 employee groups, and a proposed \$1.485-million investment in maintaining quality for students. The University has identified \$8.3 million in new revenues and cost

savings, including a one-time \$5.1-million pension contribution holiday subject to the financial condition of the pension plans and the outcome of agreements with employee groups. The new revenues and cost savings cover 67 per cent of the shortfall, leaving a gap of \$3.98 million. Possible solutions to the gap include one-time additional charges to ancillary units, increasing tuition, increasing enrolment, using year-end savings and, as a last resort, making budget adjustment (clawbacks). Miles noted that the initial planning assumptions are available in full on the University's Web site.

Several governors said they are uncomfortable with using one-time solutions to fill budget gaps because these do not address the structural deficit. They asked how long the University could continue to take this approach.

President Mordechai Rozanski responded that the only realistic solution lies in the restoration of government funding, something the University continues to press for. He noted that in addition to the current fiscal situation, Guelph, like other Ontario universities, is facing the prospect of a double cohort of students in 2003, when demand for post-secondary education in the province is expected to rise by between 35,000 and 50,000 spaces because of the elimination of Grade 13, demographic growth and increased participation rates. Guelph simply does not have the capacity to handle the expected infusion of new students, he said.

Universities need a foundation of quality to build on, said Rozanski. The provincial government must understand that, before it can begin to invest in the growth necessary to deal with the double cohort, it must first restore the quality diminished by years of cutbacks to universities. Guelph alone has faced cuts of \$34 million since 1993. Even then, Guelph would need additional resources at full cost to take substantial numbers of additional students.

Rozanski said the government is beginning to understand that the elimination of Grade 13 and other school reforms could cause a crisis in the availability of university spaces for future students similar to the shortage of hospital beds.

As part of the Council of Ontario Universities (COU) lobbying efforts under way on these issues, a public poll by Angus Reid was commissioned that shows public support for universities. Rozanski has also raised the funding issue with the minister of education and the minister of finance. He told governors that he's confident Ontario universities will know in about a year whether the advocacy efforts of

university presidents and COU have worked. One board member noted that governors as business leaders should be lending their support to these efforts.

Governors asked what the University's contingency plan would be if public funding is not restored. They stressed that Guelph needs a contingency plan and that governors would be fiscally irresponsible if they continued to approve budgets that rely on one-time solutions. Rozanski agreed, but responded that the University is continually planning for the future. He said Guelph has already cut to the bone and can cut no further without significant consequences for the quality of the institution.

Guelph must continue to look for ways to increase revenue, said the president, noting that earlier efforts in this direction are beginning to pay off. Income from the Heritage Fund, for example, has allowed the University to spend \$5.8 million on strategic investments that would otherwise have been funded by the operating budget. Still, there is no substitute for restored public funding to at least the national average, he said.

ANCILLARY BUDGETS

The 1999/2000 budgets of Student Housing Services and Hospitality Services were presented to B of G. Governors were informed that the Enrolment Management Committee's recommendations on student housing and food costs recognize that it is very important to keep the total costs of university contained for students. This is especially true at Guelph, a residentially intensive university where some 4,100 students live on campus. It was noted that keeping total costs down gives U of G a competitive edge in student recruitment.

For 1999/2000, the cost of single and double rooms will increase by 0.5 per cent and the cost of family housing will rise by three per cent. These modest increases cover only inflationary increases and the standard facility renewal plan. The cost

of meal plans will rise by two per cent, reflecting the minimum required to cover inflationary labour and food cost increases. It was noted that U of G continues to have one of the lowest-priced residence meal plans in Ontario.

Governors asked why Guelph was not being more aggressive in terms of residence and meal plan fees and in considering alternatives such as contracting out services and exclusive agreements with suppliers. They noted how much lower Guelph's residence and meal costs are compared with those of its major competitors (York, Queen's, Western, McMaster and Waterloo). Rozanski responded that Guelph is currently holding its prices down because of its values and its concerns about containing the total costs of university, particularly this year with the new, highly competitive admission cycle. This will need to be reassessed as the needs for investment in quality, maintenance and service are considered in future.

Nancy Sullivan, vice-president (finance and administration) reported that U of G has looked at alternatives such as contracting out food services, but Guelph is known for the quality of its food and hours of operation. The University has found it can perform these services as efficiently and provide better service itself, she said.

Both budgets were approved by the board.

DONATIONS AND RESEARCH GUIDELINES PRESENTED

Prof. Steven Scadding, Zoology, presented the University's guidelines on the acceptance of donations and research support, saying they were developed to articulate and record current practices and publicly document the University's position. This is not a new idea — it's a matter of putting the University's current practices on paper, he said. He noted that the guidelines were being presented to the board following extensive campus consul-

Continued on page 15

GUELPH

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**UNIVERSITY
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CANDIDATES SOUGHT FOR ASSOCIATE VP

Applications and written nominations are invited for the position of associate vice-president (academic) for a five-year renewable term. The search is restricted to faculty members at U of G. Applicants should have a broad appreciation of, and commitment to, the academic enterprise, a proven record of leadership and achievement in an academic administrative position, and a strong record of scholarship. Applications should include a letter of interest, a CV and the names of at least three referees. Submit applications and nominations by March 25 to provost Iain Campbell, chair of the search committee.

CAMPUS DAYS MARCH 17 & 18

Campus Days, U of G's annual information program for high school students and their parents, runs March 17 and 18. Each day features a panel discussion on the student perspective, academic counselling sessions, displays and campus tours. Organized by the Admissions Office, the event involves all academic programs on campus and hundreds of faculty, staff and student volunteers. For those unable to join the Campus Days program, the Admissions Office is also offering a day of campus tours March 19. For more information, call Ext. 8712.

SIGMA XI LECTURER TO EXPLORE DNA TECHNOLOGY

The U of G chapter of Sigma Xi presents a free public lecture by Pamela Newal, biology section head at the Ontario Centre of Forensic Sciences, March 17 at 7:30 p.m. in Room 200 of the Chemistry and Microbiology Building. Her topic is "Forensic Applications of DNA Technology." She will discuss the materials and challenges of DNA analysis and its effects on the courts.

SURVEY SHOWS PUBLIC SUPPORT FOR UNIVERSITIES

A new Angus Reid poll suggests that the majority of the Ontario public want the government to spend more money on universities. The survey findings also indicate that Ontario universities are viewed as a critical component of Ontario's economic future. A high percentage of survey respondents believe that when compared with other sectors of the post-secondary community, a university education offers the greatest chance for career growth (41 per cent), versus a college diploma (20 per cent) or a trade school (27 per cent). According to U of G president Mordechai Roszanski, who chairs the Council of Ontario Universities committee on government and community relations, the poll shows strong public support for a high-quality university education. See the next issue of @Guelph for complete survey results.

A Recipe for Studying the Past

Cookbook collection paints picture of what life was like for women once upon a time

THE BOOK *Lady's Companion: An Infallible Guide to the Fair Sex* is worn and musty-smelling. The print has worn off in spots, and the notes in the margins have faded beyond recognition. Published in 1760, it includes such tips as how to measure butter with a fist, what fish are in season each month and how to prevent cooking fires from getting too hot. It also contains pages and pages of "rules, directions and observations" on how women should live their lives as "virgins, wives or widows."

Then there's the pocket-sized *700 Domestic Hints* written "by a lady" in about 1839. It covers preserving fruit, baking bread and keeping bees, as well as listing dos and don'ts for women. "When visitors arrive, do not walk to the door. The lady of the house merely rises from her seat, shakes hands or curtsies, according to her intimacy with the participants." The exception, of course, is "great age or marked superiority of rank requiring, accordingly to the usages of society, a greater degree of attention."

Una Abrahamson knew these were more than just old cookbooks. Their pages paint a picture of what life was like for women once upon a time. That's why Abrahamson included them in her collection of more than 2,000 rare cookery and recipe books and never-published manuscripts.

Now these two books and the entire Una Abrahamson Canadian Cookery Collection are at U of G and will be available for scholarly work and study. It's what Abrahamson wanted when she donated the books in 1997. Until the end of last year, they were housed in her Toronto home with access arranged by the library. U of G recently moved the collection to Guelph and is working to inventory and catalogue the books.

Abrahamson, a longtime collector, writer, businesswoman, painter and advocate of women's rights, died Feb. 28. Her son John is a graduate of Guelph.

"It's an absolutely fantastic collection, ranging from the 17th to the 20th centuries," says Bernard Katz, U of G's head of special collections and library development. It includes the most complete collection of Canadian cookery in the world, as well as British and American books, with some older materials in French and Dutch.

"Una recognized that cookery books were a way of gaining insight into social history and women's history," says Katz. "These are truly historical documents. You get a good idea of how things have changed over time by looking at these books."

Chief librarian Michael Ridley notes that Abrahamson did not collect books randomly. "Her collection was built very specifically; she knew which books were valuable and had historical importance. It is one of North America's finest collections — it truly is spectacular."

During her career, Abrahamson was an editor and writer at *Chatelaine* magazine, the author of three



Chief librarian Michael Ridley and library associate Linda Amichand pore over part of the Una Abrahamson Canadian Cookery Collection.

PHOTO BY MARTIN SCHWALBE

popular books, a publicist for General Foods Kitchens and a senior executive with Dominion Stores. In 1978, she was hit by a car while crossing a Toronto street, an accident that nearly claimed her life and diminished her ability to move, think and speak. She spent years recovering. As soon as she was able, she resumed working on her collection.

Some of the books date back to the early 1600s and run the gamut from traditional cookbooks to books about plants, health, alternative medicine and healing. The collection includes *Grandma Bowman's Cookbook*, dated 1866, which consists of three small notebooks with recipes for things like orange cake and lemon pie scrawled in pencil. Then there's *The Female Economist* written by "Mrs. Smith" in 1822, with entries such as "how to make lard in a hurry" and "making pie crust when butter is dear."

Another book, *Bushman's Domestic Medicine* from 1784, encourages mothers not to crawl in bed with their children suffering from smallpox. It recommends fevers be treated by "bleeding" the patient with leeches and inducing vomiting. But the author also says "a mother's milk is unquestionably the best food for an infant. Neither art nor nature can afford a proper substitute for it."

The collection is particularly strong in books published in Canada and those used by Canadian women but published elsewhere. Of special interest are several Canadian manuscripts from the 19th century.

"It will certainly prove to be the

finest collection in Canada and indeed probably one of the most important collections in private hands in the world," says David Mason, owner of David Mason Fine and Rare Books in Toronto, who visited Abrahamson's home many times. "She would cook us 18th-century meals," he says. "She'd pull out one of the cookbooks and somehow find the ingredients. We had some very strange meals. It was always delightful."

Dorothy Duncan, executive director of the Ontario Historical Society and the country fare editor for *Century Home* magazine, also praises the collection. "I often sat surrounded by it in her home. One of the reasons it was so wonderful was that Una began collecting long before people recognized the importance of these documents and books. She was a pioneer."

Adds Duncan: "These books are a wonderful way to introduce people to their history. So often, people think of history as being far away, long ago, and having nothing to do with them."

Elizabeth Driver, an independent bibliographer and researcher who is putting together a bibliography of Canadian cookbooks, also used the collection in Abrahamson's home. "Nothing compares to it," she says, adding that she has travelled to other countries for her work. "These books showed how women lived their lives, what their values were and how they organized themselves socially."

BY LORI BONA HUNT

PEOPLE

NOVELIST FEATURED

Prof. Janice Kulyk Keefer, Literature and Performance Studies in English, was featured on TVOntario's *Imprint* last month discussing her recently published family memoir, *Honey and Ashes: A Story of Family*. She also appeared on CBC radio's *This Morning* discussing her recent book of poetry, *The Marrying Sea*, and reading the title poem.

GUELPH DEBATER WINS NATIONALS

Nathan MacDonald, a fourth-year political science and philosophy student from Sydney, N.S., who was part of a team that brought home top prize from the North American Debating Championships in January, capped his undergraduate debating career with a new title last weekend — top debater in Canada. He earned the title at the National Debating Championships held at the University of Western Ontario. This marks the fourth time MacDonald has been named top speaker at a tournament during the 1998/99 academic year.

FRAN FACULTY GIVE TALKS

Members of the Department of Family Relations and Applied Nutrition (FRAN) gave presentations at the annual meeting of the Canadian Association on Gerontology this fall. Prof. Heather Keller spoke on "Diet Habits of Seniors with Activity Limitations." Prof. Joseph Tindale and former graduate student Jeanette Parsons presented "Parents Who Sue Their Adult Children for Support: An Examination of Decisions by Canadian Court Judges." A paper by Tindale, sessional instructor Sharon Livingstone and former faculty member Anne Martin Matthews focused on "Balancing Work and Family: Perspectives of Employed Individuals Providing Care to Adults with Special Needs." Other FRAN faculty giving recent talks include Prof. Susan Lollis, who presented "Sibling Socialization of Moral Orientation: An Exploration of 'Divergent Rationalities' Within the Family" to the Association for Moral Education in New Hampshire, and Prof. Kerry Daly, who discussed "Deconstructing Family Time: From Ideology to Lived Experience" at the conference "Work and Family: Today's Realities, Tomorrow's Visions" in Boston and presented "Unsolved Theoretical Mysteries: Creating Concepts out of Data" to the National Council for Family Relations in Milwaukee.

STUDENTS HEAD FOR NATIONAL COMPETITION

Four students in the School of Rural Planning and Development have won the first round of the Canadian Evaluation Society national student case competition and are off to Ottawa at the end of March for the final competition. Coached by Prof. Harry Cummings, the team consists of Nick deSalaberry, Chris Khng, Farah Chandani and J.V.R. Murty.

THE POWERS THAT BE

"Although current conceptions of a commercialized university closely linked to private power are no innovation, there is nonetheless a significant shift in that direction."

Editor's note: World-renowned linguist and cultural theorist Noam Chomsky, Institute Professor in the Department of Linguistics and Philosophy at the Massachusetts Institute of Technology, received an honorary doctorate of letters from U of G Feb. 17. Chomsky, who has been described as *the* exemplary public intellectual and oppositional thinker of our era, gave the convocation address to graduates of the College of Arts. The following is an edited version of his talk.

I'D LIKE TO BRING TO YOUR ATTENTION two observations by highly influential figures, one of them on the general course of human affairs, the second on the application of similar thinking to a university setting.

The first one is a very recent comment by David Rockefeller, who speaks generally for the more liberal internationalist sector of the industrial democracies. He was commenting on, and I quote, "the trend toward lessening the role of government, something business people tend to be in favour of. But the other side of that coin is that somebody has to take government's place, and business seems to me to be a logical entity to do it. I think, too, that many business people simply haven't faced up to that or they have said: 'It's somebody else's responsibility, it's not mine.'"

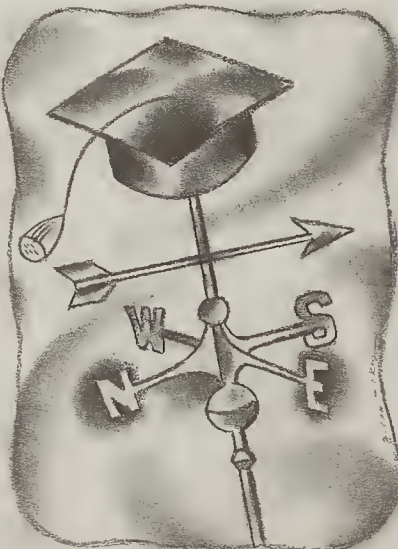
There's an unspoken premise that the responsibility certainly doesn't lie with the public. In fact, the last 25 years have been notable for a sharp escalation of what business leaders call "the everlasting battle for the minds of men," who must be indoctrinated with the capitalist story and taught to regard government as an enemy to be feared and not an instrument they might use for public purposes in a democratic community.

That's just the latest phase in a long struggle we can trace back to the first modern democratic revolution in 17th-century England and to the reactions at the time of "the men of best quality" as they called themselves, who were appalled by the uprisings of what they called "the rabble."

The latest phase was, in part, a reaction to the ferment of the 1960s that deeply disturbed the men of "best quality" of that day. One notable illustration of that reaction was the report of David Rockefeller's Trilateral Commission on the Crisis of Democracy. They perceived that as the normally passive and obedient public sought to enter the public arena to formulate and press their demands, it presented an intolerable challenge that must be beaten back.

The commission expressed their particular concern about the failures of, in their terms, "the institutions responsible for the indoctrination of the young," that is, the schools, the churches and the universities, and the institutions responsible for shaping attitudes and beliefs more generally, including the media, which they said were treading on dangerous ground and might have to be restrained by state action. The right wing, incidentally, took a much harsher stand, so this is the mild side of the spectrum.

It's worth noting that "the men of best quality" across the



political spectrum are not calling for a reduction of the state. Rather, what they're calling for is a shift in the functions of state power, away from public participation and service to public needs, towards private control and service to concentrated private power.

The second comment I'd like you to think about is by Richard Atkinson, the president of one of the world's greatest university systems, the University of California. In a recent talk to the United Nations University in Tokyo, he was discussing basic research or what he calls "curiosity research," driven by a sheer interest in phenomena rather than potential applications. Such efforts to understand the world at the deepest possible level are justifiable in universities, he said, but only insofar as they may reach the stage where there is potential for application. In the real world, that means potential for profit and power. The common good is incidental, and the historical record shows clearly enough that the applications are often harmful to the general population.

Such guidelines over time would tend to transform universities into research, development and training operations for concentrations of private power that shape their course and rent their services. The pressures to adopt those standards are very real.

Well, where does that conception leave the College of Arts here and its counterparts in the University of California system

and elsewhere? President Atkinson, in the same talk, mentions in passing the role of the university as "the shaper of character, a critic of values, a guardian of culture." But that falls within the sphere of what he calls "education and scholarship." That's a domain to be distinguished from serious research and development in the university system that is geared to business interests. Accordingly, these aspects of the university receive only passing mention. That's a considerable change from the rhetoric of founders of the modern university or even in more recent years.

How much of a change is it? Here, we should be careful not to romanticize or exaggerate. Universities today are much more free and open than generally in the past, perhaps ever in the past, and university research has always been largely geared toward application, which means profit and power. It's hard to find a dynamic sector of the modern economy that does not depend crucially on publicly funded university research over a long period. Computers and information technology, including the Internet, are some recent and dramatic examples. The same is true of the growing areas of biotechnology and many others. In fact, it's hard to find an exception.

Although current conceptions of a commercialized university closely linked to private power are no innovation, there is nonetheless a significant shift in that direction, and it raises quite serious questions for universities. Ideally, university life should be liberating for all participants. It should also have that impact on the broader society. In a fundamental sense, the social and intellectual role of the university should be subversive in a healthy society.

In the sciences, that's more or less taken for granted. If not in these words, it's understood that science survives by constant challenge to established thinking, mostly by young people. Successful education in the sciences seeks to encourage students to initiate such challenges and to pursue them. Individuals in society at large benefit to the extent that these liberatory and subversive ideals extend throughout the educational system and far beyond.

As subordination to private power increases, universities face serious dilemmas, at least if they try to maintain their integrity as liberatory and fundamentally subversive institutions — challenging, questioning, exploring the frontiers of knowledge and understanding, and doing so in a common effort in which participants pursue their somewhat different paths.

All of these problems are large and have many ramifications. If we choose to ignore them — and it is a choice, of course — we fail our responsibility to our own societies and to future generations, not to speak of the great mass of people of the world whose fate in no small measure lies in the hands of those who share in privilege in rich and powerful countries like ours. How such responsibilities should be undertaken may not be easy to determine, but we can be reasonably confident that neither conscience nor history will look favourably on an unwillingness to face these decisions with care and sincerity.



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EMC Recommendations on Enrolment, Tuition and Student Financial Assistance

Introduction

THIS IS THE REPORT from the Enrolment Management Committee (EMC) to the President's Budget Advisory Group (PBAG) and the Senate Committee on University Planning (SCUP). The report has been shared with the University community, and feedback from members of the community was forwarded to SCUP for a meeting March 8. Subsequently, the president and Executive Group made final recommendations, based on this report, to the Board of Governors finance committee March 10. These recommendations were accompanied by comments from SCUP, including feedback received. The final recommendations will also be discussed by Senate March 16, and comments from Senate will be available for B of G when it considers the final recommendations March 25.

In framing its recommendations, EMC considered the University's 1999/2000 preliminary budget assumptions. These assumptions indicated an anticipated operating budget shortfall of \$12.28 million, which is based on three general factors — a \$6.8-million structural deficit carried over from 1998/99; expected expenditure increases, primarily composed of salary and benefit adjustments for employee groups; and proposed strate-

gic quality-investment outlays. The administration has proposed a number of base and one-time solutions for 1999/2000, totalling approximately \$8.3 million or 67 per cent of the cumulative problem. This leaves a still unmet gap of \$3.98 million for next year.

Clearly, the University needs to address its continuing structural deficits — deficits that will continue to grow to more than \$10 million for 2000/2001 unless there are significant increases in base-budget revenues. The urgency for renewed and adequate levels of public investment in higher education is eminently clear.

The recommendations in this draft document present a number of revenue solutions. Even if all these potential solutions were approved and realized, the total revenue generated would only be approximately \$3.4 million. This potential increase in revenue includes an increase of \$2.845 million from increased tuition, which represents 22 per cent of the \$12.82-million shortfall. Based on the assumptions contained in the recommendations, the University anticipates there will be approximately \$1 million available for increased mandated tuition reinvestment. Coupled with the \$1.4 million from externally raised student aid from the ACCESS program, the Ontario Graduate Scholarships in Science and Technology and the strate-

gic investments called for in the budget, there is some \$2.4 million of additional aid available next year, representing a 32-per-cent increase over 1998/99. It is likely that there will be more than \$10 million in financial aid available for students at Guelph in 1999/2000. EMC has indicated that it will develop mechanisms to allocate the additional tuition reinvestment money to support continuing students with financial need.

In reaching its recommendations, especially those related to tuition fees, EMC considered a wide variety of options. The recommendations appearing in this document represent an attempt by the committee to strike a balance among a number of often conflicting concepts and institutional concerns, including the need by the University to increase its base tuition revenues; the financial burden of entering and in-course students; U of G's competitive position in attracting, admitting and retaining undergraduate and graduate students; and accessibility to higher education.

The committee acknowledges that the recommendations approved by the majority of its members will not be acceptable to all constituents. Quite simply stated, any tuition fee increases are regrettable, but they are unfortunately necessary to preserve the quality of our institution that we have all worked so hard to achieve.

Costs of attending university

Tuition, residence and meal/living costs, all representing about an equal third, make up the costs of attending university. U of G is residentially intensive. Over the past five years, Guelph has consistently taken fewer students from the local area (12 per cent compared with the provincial average of 39 per cent), more students from the greater Toronto area than the system average (29 per cent compared with 25 per cent) and many more students from the rest of Ontario (57 per cent compared with the provincial average of 38 per cent). For the majority of new semester-one students, the costs of room and board at Guelph are critical factors for recruitment and retention.

There are three key factors for stable enrolment — recruitment, admission and retention. In the first instance, the University must recruit and admit at least 3,000 new semester-one students to Guelph, i.e., meet its enrolment targets in terms of numbers and the quality of applicants. These goals are vital for the fiscal and academic health of the institution.

The impact of the costs of attending university is important for prospective students. For students contemplating coming to university, the cost of tuition is a relatively constant component when considering different universities. The main question for many students is whether to live at home or attend a university where they have to pay for residence and meals. Residential accommodation and meal-plan costs at Guelph must therefore be competitively priced within that market.

Moreover, the change in the admission process this year adds more uncertainty than in any previous year to the process of successfully converting applicants into registered students. There will be increased system-wide competition for the pool of qualified applicants among universities.

It is also important to note that proportionately more in-course students live in our residences compared with students at other universities. As a consequence, increases in room and board charges affect a larger number and a more diverse student population at Guelph than elsewhere. Senior students in residence often contribute an important service to residence life. Moreover, EMC is aware that there is some evidence that retention rates of in-course students living in university residences tend to be higher than for students living off campus.

Our expertise in hospitality services and considerable historical experience in providing residence space to a large number of students have many advantages for students; we are able to contain costs because of economies of scale.

Therefore, EMC makes the following recommendation:

Recommendation 1

That, where possible, any proposed increase in fees charged for room and board not exceed those required to meet total expected increases associated with inflation, necessary safety requirements, and expenditures required to develop and maintain the current level and quality of services.

On Feb. 25, B of G approved recommendations that the cost of single and double rooms should increase by 0.5 per cent and that the cost of family housing should increase by three per cent. The board also approved that the cost of meal plans should increase by two per cent. In both cases, these proposed increases are lower than those being considered by our major competitors. These decisions will therefore provide a continued, distinct competitive advantage for Guelph.

It is recognized that it is important for the University community to appreciate that room and board rates in future years may have to be increased further to ensure continued development and maintenance of the quality of the residential housing and food service facilities at Guelph.

Enrolment

Intake of new undergraduate students to the University has increased by almost 30 per cent since 1995. In fall 1998, the intake was just over 3,000 undergraduate students, and sustained intakes of this magnitude over the next three years will increase steady-state total undergraduate population to slightly less than the all-time highs experienced in the early 1990s. Since 1990, however, there has been an 18.9-per-cent reduction in the number of faculty and a 23.4-per-cent reduction in staff. Over the same period, a significant number of courses have either been eliminated or have had sections cut.

EMC recognizes that many areas are close to — or already at — capacity, but it is also aware that increasing enrolment could offset increases in tuition. Despite concerns about capacity, the committee recommends increases in undergraduate enrolment wherever

possible.

Recommendation 2

That admission targets on registration date for new semester-one undergraduate students increase from approximately 3,000 in 1998 to approximately 3,025 for 1999. Any increase to the fall 1998 targets should be limited to those areas where there is some reasonable evidence of unfilled capacity and the increase can be achieved without additional resources.

If realized, an increase of 25 students would generate additional revenue of approximately \$50,000 net of mandated tuition reinvestment.

The issue of admitting additional external transfer students (including transfers from other universities and community colleges) into programs at levels higher than semester one should also be considered. Increasing the mobility between community college programs and university degree programs is an important public goal, and of course the potential effects on our enrolment revenues cannot be ignored.

Recommendation 3

That, where possible, admissions committees focus on admission of external rather than internal transfers into programs where space is available, particularly at more senior levels.

With the exception of a modest increase in fall 1998, the population of graduate students at U of G has been falling since 1994. Graduate enrolment is important to both the research and teaching activities of the University. A majority of graduate students participate in faculty research programs, and graduate students contribute to the research output of the University. Graduate teaching assistants are an integral and important component of undergraduate teaching activities.

Several graduate programs have indicated a capacity to increase enrolment. EMC is keen to promote increased graduate enrolment where possible, and several programs have indicated a capacity and willingness to increase enrolment. EMC set an enrolment target increase of close to 20 per cent for next year based on discussions between the acting dean of graduate studies and graduate co-ordinators. This would mean an increased intake of about 90 students in fall 1999. Although this target is aggressive, there is some evidence that increased recruitment and liaison activities by programs and faculty might achieve this goal. It should be noted that intake to graduate studies rose by 75 in fall 1998 without any active recruitment

activity, which provides some confidence that the further intake could be achieved with a modest increase in recruitment.

The proposed increases are in six or seven targeted programs where there is a strong applicant pool and faculty are already actively engaged in recruitment of additional students. Increased funding from the Ontario Graduate Scholarships in Science and Technology (46 awards at \$15,000 per year), which will be used for recruiting for the first time for fall 1999, will be instrumental in helping to meet this target. Successfully meeting the target would generate approximately \$350,000 in new revenue net of the mandated tuition reinvestment.

Recommendation 4

That graduate student intake increase by 20 per cent for 1999/2000. This would represent an additional 90 new students admitted in fall 1999.

Last year, Senate approved admitting a small number of new semester-one students into the winter and spring semesters based on the availability of space in particular degree programs. EMC strongly supports this initiative and recommends the following.

Recommendation 5

That the University continue with last year's policy to admit 40 new semester-one students in the winter and spring semesters based on the availability of spaces in particular programs. The additional enrolment last year was accomplished without incremental costs, and it's anticipated that the same would hold for winter and spring 2000.

In spring 1998, following a successful marketing campaign promoted and supported by EMC and the Office of Registrarial Services, there was an increase in the number of spring semester registrations for the first time in many years. There is considerable capacity for increased enrolment in the spring semester. The provost, with financial support from the Heritage Fund, has supported the development of distance education courses that can be available specifically for the spring semester, but with the intent that the courses can be made available in the fall and winter semesters as well. In addition, there has been aggressive marketing for spring 1999.

Based on the increased number of courses available, it's anticipated that enrolment will increase again. Increased enrolment could generate an additional \$200,000 net new revenue for the institution.

It is absolutely critical that departments de-

velop proposed new courses that have been scheduled for spring 1999 in time for the start of the spring semester. Failure to do so will have a serious impact on forecasted revenues from the spring semester.

Recommendation 6

That enrolment targets (including students in distance education courses) for spring semester increase from approximately 2,700 registrants in spring 1998 to approximately 3,000 registrants for spring 1999. Further planning for increasing fall and winter semester distance education courses should also occur.

In 1997, B of G approved a two-year reduction in international (visa) student fees and Senate approved targets to increase international (visa) student enrolment at U of G. These targets included a doubling of undergraduate student enrolment and a 50-per-cent increase in graduate student enrolment. EMC developed three-year plans for international (visa) student recruitment.

It should be noted that these enrolment targets for international (visa) students do not include students registered in exchange programs at the University. Because exchange students pay tuition fees at their home institution, tuition revenues are not affected at Guelph.

There was a modest increase in the number of new international students on campus in fall 1998 in keeping with the strategic plan developed by EMC, and the committee supports continued strategic recruitment for international (visa) students. The additional revenue that this will generate has been included in the flow-through effect of enrolments in the budget assumptions.

Recommendation 7

That the University continue to work towards increased enrolment targets for international (visa) students as approved by Senate.

Tuition fees

Deregulation

In 1997, the government deregulated all graduate programs. This policy change allowed universities to set independently the level of tuition fees in all their graduate programs; fees could be either increased or decreased. The government also allowed universities to deregulate fees in professional undergraduate programs. Universities were allowed to move towards full-cost recovery of programs at 20 per cent a year over five years. Although not well understood by some, deregulation constitutes a more extensive form of fee differentiation.

Many Ontario universities have reacted by increasing fees in certain professional undergraduate programs such as education, engineering, business and computing science. In some cases, these increases are well beyond 10 per cent, and in some institutions, tuition fees of more than \$12,000 a year are charged. From many perspectives, EMC does not view deregulation as a viable option for 1999/2000, although it will continue to review this possibility in the future.

Recommendation 8

That, for 1999/2000, the University not pursue deregulation of any existing undergraduate or graduate program.

Differentiation

Currently there are three programs with differentiated fees at the undergraduate level — BLA, B.Sc.(Eng.) and DVM — and one at the graduate level, the executive MBA in agriculture. The committee acknowledges that many other Ontario universities are differentiating program fees (see Table 1) and that EMC will need to continue studying whether or not Guelph should differentiate fees in the future. But based on an assessment of the competitive position of the programs at Guelph this year, the uncertainties introduced by the new admission cycle for 1999, and the importance of

the University in meeting its enrolment targets in fall 1999 (including enrolment in engineering and computing science associated with the Access to Opportunities Program), the committee makes the following recommendations:

Recommendation 9

Undergraduate programs

That, for 1999/2000, the University neither increase the number of undergraduate programs with a differentiated fee nor increase the level of the differential fee.

Graduate programs

That, for 1999/2000, the University not pursue differentiated tuition fees for any existing graduate program, with the exception of the executive MBA in agriculture, which already has a differentiated fee approved by Senate.

Recommendation 10

That EMC study thoroughly the degree of differentiation implemented in programs at other Ontario institutions and consider the advisability of introducing further differentiation at Guelph in future years.

In 1996, Senate approved the executive MBA in agriculture as a unique distance education, electronic version of the residential MBA program. The program focuses on a specific niche clientele and admits about 35 students each year. It is designed for executives with senior managerial experience who are able to work on the degree program without leaving their place of work. The program is offered jointly with Athabasca University, with fees linked closely to the fees charged in Athabasca's executive MBA program. Senate approved a differentiated fee when the program was introduced. Students are charged one fee for the entire program, which takes about 2½ years to complete. Payment is scheduled at set times during the program.

The joint management committee for the Guelph-Athabasca degree has reviewed the fee structure in the light of program costs and fees of competitive programs. The proposed increase in fees will be directed to cover increased costs of program delivery and will not affect the budget. On the basis of these discussions, EMC recommends the following:

Recommendation 11

That the program fee for the executive MBA in agriculture be increased from \$22,500 to \$25,000 effective May 1, 1999.

Domestic student tuition fees

Currently, the domestic undergraduate student tuition fees at Guelph are about \$80 lower per year than the system average for BA/B.Sc. programs in Ontario. It should be noted that many institutions have chosen to implement considerable differentiation of tuition fees for a number of programs. In some cases, the increase is well beyond 10 per cent, so the average overall fees charged at these institutions are actually higher than the data published by each university for their BA/B.Sc. programs. Using published data on the lowest fees available in each institution (Table 1), U of G has the 12th lowest tuition fees in the province; only four universities have lower base fees than Guelph. But U of G has higher non-tuition compulsory fees compared with other universities. Some of these non-tuition fees are levied by the institution, but some are collected by the institution on behalf of student associations. The differential in non-tuition fees represents institutional and student government policies to provide more quality services to our students.

In previous years, EMC carefully considered all aspects of tuition increases, including accessibility, competitiveness and equity. As a result of previous recommendations from the committee, increases in tuition fees at Guelph have been among the lowest in the university system. It is important to note that tuition fee levels at U of G appear not to have disadvantaged our ability either to attract or retain students. In fact, there has been a consistent

increase in the number of applicants to Guelph since 1995.

Over the same period, our retention rate of more than 90 per cent, which is already high compared with other Ontario universities, has continued to improve.

The committee thoroughly debated all aspects of the tuition issue, and committee members had diverse views on the appropriate recommendations that should be forward to PBAG. Part of the committee's process was to carefully weigh the views expressed in written submissions and the many oral comments received during the consultative process. Committee members were aware of the desire by some to freeze tuition fees at their current levels, and the objections by many community members to going to the maximum increases (10 per cent) allowed by the government.

The committee attempted to achieve a balance among equity, institutional need for additional revenues to preserve and enhance quality, competitiveness and the financial burden on students. In particular, the committee was quite concerned about the effects of fee increases on continuing students, who could not have anticipated subsequent fee increases when they accepted admission to the University. There is no easy or obvious solution to this dilemma; it is a systemic problem for all students across Ontario. But EMC has attempted to address this issue by proposing a recommendation on targeted financial assistance for continuing students (see section on student financial assistance and Recommendation 20).

Recommendation 12

Undergraduate programs

That domestic undergraduate tuition fees increase by 9.5 per cent for 1999/2000. This represents an increase of \$164.50 per semester.

A 9.5-per-cent increase in tuition would generate \$2.7 million net of tuition reinvestment. Based on information available as of Feb. 25, the majority of other institutions expect to increase the number of programs with differentiated fees. Moreover, almost all other universities intend to increase by nine to 10 per cent the cost of BA/B.Sc. programs. Therefore, the proposed change to the fee at Guelph would probably not change our competitive position in the province.

In contrast to the undergraduate program, tuition fees for Guelph's graduate program are among the highest in Ontario and are considerably higher than those at competitor institutions in eastern and western Canada. Comparative figures are shown in Table 2 for graduate fees in Ontario. It should be noted, again, that the fees quoted in this table represent base fees for graduate programs. Many universities in Ontario have begun to differentiate graduate tuition fees, particularly in professional areas. Some of these differentiated fees are double the base fees, thereby providing considerable additional revenue to those institutions.

With the exception of fall 1998, when there was a very modest increase in graduate student enrolment at Guelph, there has been a progressive decline in graduate student enrolment since 1994. Although there is capacity and willingness to increase graduate enrolment, success in achieving increases in enrolment may be hampered by the relatively high level of our graduate student fees. EMC considered the balance between the challenge of recruitment with a relatively high fee against the base budget problem of the University and therefore recommended a small increase in graduate tuition.

Recommendation 13

Graduate programs

That domestic graduate tuition fees be increased by 2.5 per cent for 1999/2000. This represents an increase of \$39 per semester.

A 2.5-per-cent tuition increase would generate \$120,000 net of tuition reinvestment. Based on information available as of Feb. 25, the majority of other institutions expect to increase the number of graduate programs with

differentiated fees. The cost of MA/M.Sc./PhD programs will rise by zero to 10 per cent. We do not anticipate that our relative competitive position will improve.

In the past, tuition fees for the diploma program at Guelph have been set at the same level as fees for undergraduate degree programs. Tuition revenue from students in the diploma program is credited to the Ontario Ministry of Agriculture and Food budget and is not part of the Ministry of Education and Training (MET) budget of the University. Nevertheless, the diploma students on campus at Guelph benefit from the facilities at the University. Tuition fees at the colleges at Ridgeway, Kemptville and Alfred have traditionally been set lower than fees for the diploma program on the Guelph campus in line with the fees charged at other colleges in Ontario. EMC expects that PBAG and SCUP will receive recommendations from the agricultural colleges at Ridgeway, Kemptville and Alfred through the Diploma Program Committee and the dean of OAC.

Recommendation 14

Diploma program at Guelph

That tuition fees for the diploma programs at the Guelph campus increase by 9.5 per cent for 1999/2000. This represents an increase of \$329 per year (two semesters).

There is no impact on the MET budget from this recommendation.

International student tuition fees

In 1998, B of G approved reductions in tuition fees for international undergraduate students to be implemented for 1998/99 and in 1999/2000. The committee supports the continuation of this policy. The undergraduate tuition fees will be competitive with those at other Ontario universities and many Canadian institutions in other jurisdictions. This tuition fee policy has already had a positive impact on recruitment of international undergraduate students. Accompanied by aggressive, targeted marketing, there was an increase in new semester-one international student enrolment in 1998/99, and the strategic plan accepted by EMC last year predicts further increases in enrolment for 1999/2000.

For the last two years, the tuition fees for international graduate students have been frozen. The fees are the lowest in Ontario and are competitive with those at several competitor universities elsewhere in Canada. This policy has stopped the dramatic decline in international graduate enrolment seen at Guelph since 1994, and there was a small increase in international graduate student enrolment at Guelph in 1998/99. Several competitor universities have recommended increases in international graduate student fees for the coming year.

Recommendation 15

International undergraduate tuition fees

That the University continue with the second year of the two-year plan to reduce tuition fees for international undergraduate students in all programs except the international DVM program.

The impact of these changes has already been included in the budget predictions.

International graduate tuition fees

That the tuition fees for international graduate students increase by 2.5 per cent in 1999/2000 (the same percentage increase recommended for domestic graduate tuition fees). This represents an increase of \$59 per semester.

It is anticipated that this increase in fees will provide an additional \$25,000 in new revenue for the institution.

Graduate tuition fees for joint programs

U of G operates a number of joint graduate programs with Waterloo, Wilfrid Laurier and McMaster. In most of these joint programs, students apply to the program and are allocated a home institution. In the remaining programs, students select an adviser at a particular institution and are registered at the adviser's institution. In both cases, there is potential for

students in the same program to be charged different levels of tuition. This discrepancy is neither equitable nor advantageous for balanced recruitment. Partner institutions have not set graduate tuition at this stage, but EMC considers it important not to disadvantage students in these joint programs who might be registered at Guelph.

Recommendation 16

That domestic graduate tuition for students in joint programs (approved by OCGS) be charged tuition at the lower/lowest rate of the participating universities.

Grad student refund schedule

Currently, students who complete the final examination and submit a satisfactorily completed and corrected thesis within three weeks of the start of a semester must pay semester fees, but they are given an appropriate refund. After the three-week deadline, there is a sliding scale of charges applied to the student's account. The principal delay is experienced after the thesis is submitted, but before the final defence. These time constraints place considerable stress on graduate students and faculty and generate considerable negative feelings towards the University. The refund schedule was introduced to try to reduce the amount of money paid by students who could not complete their thesis in a given semester, but this is not always appreciated by students. In fact, the refund scheme generates about \$50,000 in revenue annually for U of G. EMC proposes eliminating charges for the final semester for graduate students who submit their thesis ready for defence within three weeks of the date of the start of the semester.

The committee raised the possibility of eliminating payment of the tuition fee for the semester in which a graduate student submits a thesis ready for defence in the first three weeks of the semester. To compensate for the loss of revenue that would occur if this proposal was accepted, the committee proposes introducing an examination fee. There are

some important details that need to be resolved about process, and EMC has asked the Board of Graduate Studies to pursue this matter.

Recommendation 17

That the Board of Graduate Studies pursue the possibility of eliminating the tuition fee for the final semester of graduate students who submit their thesis within three weeks of the start of the semester. To compensate for the loss of revenue, the board should consider introducing a final defence examination fee. EMC recommends that the board seek to resolve this issue before winter 2000.

Co-op program fees

The University made significant improvements in the services and support of students in the co-op program last year. Students who entered the program in fall 1998 were charged a revised co-op fee that is higher than that of continuing students, who were grandparented against the change in fees. But the students who were grandparented have benefited from the improvements made in the services. EMC considered recommendations made by the Co-op Cabinet, the management group that supervises the co-op programs, and proposes the following:

Recommendation 18

Co-op students registered before fall 1998
That the work-term fee for co-op students who entered the program before fall 1998 increase by 9.5 per cent for 1999/2000 to \$533.25. This represents an increase of \$46.25 per work term. Students under this fee model pay a total cost of \$1,600 or \$2,133 for a three- or four-work-term program. The committee note that the academic semester fee for co-op students who entered the program before fall 1998 is eliminated.

Co-op students registered in fall 1998 and on

That there be no change in the semester co-op fee for 1999/2000. It is recommended that the co-op fee be \$200 per semester for a total cost of \$2,200 or \$2,400 for a three- or four-work-term

program respectively.

The increased revenue will be directed to offset increased costs of expanding the services of the co-op programs.

Student financial assistance

In 1997/98, EMC introduced a comprehensive approach to financial aid. In 1998/99, approximately \$7.6 million was distributed in financial aid in the form of merit-based scholarships, bursaries, scholarships or work/study for students with identified financial need. This represents a 138-per-cent increase in student financial assistance over 1992/93.

Based on the recommendations above, there will be a significant increase in tuition reinvestment for 1999/2000. In addition, there are predicted increases in student aid from the ACCESS program and the Ontario Graduate Scholarships in Science and Technology, and increases in graduate and undergraduate scholarships as part of the strategic reinvestments detailed in the budget assumptions. It is likely that more than \$10 million will be available for distribution this coming year, an increase of at least \$2.4 million or 32 per cent over 1998/99.

EMC wants to ensure there is an appropriate balance between entering and continuing awards, between awards based on academic merit and financial need, and between graduate and undergraduate awards, and that all students with financial need, not simply those who meet OSAP eligibility criteria, have access to financial assistance. EMC is aware that there is a significant number of students who do not qualify for OSAP support under the current stringent and limited conditions imposed by the government, but have financial need. The committee is concerned that the University should find ways to direct financial aid towards this group in 1999/2000.

Recommendation 19

That EMC undertake a joint review with the Senate Awards Committee and the Board of Graduate Studies on the approaches taken for financial assistance at U of G.

Of particular concern to EMC is the impact of rising tuition fees on debt load for students, especially continuing students, who entered programs at Guelph in previous years and may not have planned for some of the significant subsequent increases in tuition fees that the University has been forced to implement.

Recommendation 20

That in allocating new incremental tuition reinvestment dollars in 1999/2000, particular attention be given to continuing and graduating students who have identified financial need and relatively large debt loads.

EMC determined that there is a strategic need to increase the number of merit-based scholarships for entering undergraduate students. These scholarships should be targeted for Ontario scholars.

Recommendation 21

That the University support the introduction of a scholarship grid for entering undergraduate students with admission averages of more than 80 per cent.

Payment options

EMC considered moving the dates of payment forward as a means of increasing revenue to offset against tuition increases, but there was clear opposition to this proposal. There was interest in increasing the flexibility of payment approaches, including monthly instalments. Changes cannot be implemented for 1999/2000, but discussion on these issues will continue in the coming year.

Recommendation 22

That EMC continue its discussion regarding various options to introduce more flexible payment schemes, including more frequent payments, credit card payments and use of direct debit.

Recommendation 23

That EMC support the work of the Board of Graduate Studies in exploring more transparent and appropriate ways of charging graduate tuition fees.

Table I - Comparison of Domestic Undergraduate Tuition Fees in Arts and Science 1996-1999

	1896/97		1897/98		1898/99		1999/2000			Differentiation
	Rank	\$	Rank	\$	Rank	\$	Percent	Min	Max	
1	Ryerson	2,986	Ryerson	3,285	Ryerson	3,613	10%	3,974	3,974	
2	Toronto	2,941	Brock	3,228	Waterloo	3,554	9.1%	3,866	3,866	*
3	Western	2,941	Laurentian	3,228	Brock	3,551	9.1%	3,874	3,874	
4	Waterloo	2,936	McMaster	3,228	Queen's	3,551	9.1%	3,874	3,874	*
5	Brock	2,935	Queen's	3,228	Trent	3,551	9-10%	3,800	3,906	
6	Lakehead	2,935	Trent	3,228	York	3,551	9.1%	3,874	3,874	*
7	Laurentian	2,935	Waterloo	3,228	Lakehead	3,550	7%	3,799	3,799	*
8	McMaster	2,935	WLU	3,228	WLU	3,550	9-10%	3,870	3,905	*
9	Queens	2,935	York	3,228	Toronto	3,516	9.1%	3,836	3,836	*
10	Trent	2,935	Lakehead	3,225	Western	3,515	9.1%	3,834	3,834	*
11	York	2,935	Guelph	3,223	Laurentian	3,486	9%	3,800	3,800	*
12	Guelph	2,930	Western	3,217	Guelph	3,465	9.5%	3,794	3,794	*
13	Carleton	2,920	Toronto	3,196	Windsor	3,451	9.1%	3,765	3,765	*
14	Windsor	2,892	Windsor	3,181	Ottawa	3,443	10%	3,787	3,787	*
15	Nipissing	2,875	Carleton	3,170	McMaster	3,422	9%	3,730	3,730	*
16	Ottawa	2,850	Nipissing	3,162	Carleton	3,420	10%	3,762	3,762	*
17	WLU	2,816	Ottawa	3,135	Nipissing	3,320	5.7%	3,510	3,510	*
Average		2,920	10% increase	3,213	9.6% increase	3,522	8.1%-8.4% increase*	3809	3817	

* Institutions with differentiated undergraduate fees ranging up to \$14,000 per year.

Table II - Comparison of Domestic Graduate Tuition Fees for Basic Arts and Science Programs 1996-1999

	1996/97		1997/98		1998/99		1999/2000			Differentiation
	Rank	\$	Rank	\$	Rank	\$	Percent*	Min	Max	
1	Queens	4,422	Queens	4,863	Queens	5,009	3-10%	5,160	5,610	*
2	McMaster	4,422	Trent	4,862	Laurentian	4,977	5%	5,226	5,226	
3	York	4,421	WLU	4,860	Trent	4,862	5%	5,105	5,105	*
4	Lakehead	4,420	Guelph	4,725	WLU	4,860	5-10%	5,103	5,346	
5	Trent	4,420	Carleton	4,650	Carleton	4,830	10%	5,313	5,313	*
6	Carleton	4,416	Laurentian	4,609	Guelph	4,725	2.5%	4,843	4,843	*
7	Guelph	4,416	McMaster	4,422	Western	4,500	5%	4,725	4,725	*
8	Waterloo	4,323	York	4,421	Ottawa	4,446	5%	4,668	4,668	*
9	WLU	4,242	Lakehead	4,420	McMaster	4,422	0%	4,422	4,422	*
10	Laurentian	4,190	Ottawa	4,266	York	4,421	0%	4,421	4,421	*
11	Western	4,062	Western	4,266	Lakehead	4,420	5%	4,642	4,642	*
12	Ottawa	4,050	Windsor	4,242	Windsor	4,370	10%	4,807	4,807	*
13	Windsor	3,857	Brock	4,158	Waterloo	4,356	10%	4,792	4,792	*
14	Brock	3,780	Waterloo	3,960	Brock	4,158	10%	4,574	4,574	*
15	Toronto	3,408	Toronto	3,700	Toronto	4,070	10%	4,477	4,477	*
Average		4,190	5.7% increase	4,428	3.0% increase	4,562	\$6-6.5% increase	4,819	4,858	

* Universities with differentiated graduate fees ranging up to \$11,000 per year.

Conclusions

If all the recommendations are accepted and the enrolment targets are achieved, the impact on the 1999/2000 MET operating budget would be:

Enrolment increases

Undergraduate enrolment (Recommendation 2)	\$50,000
Graduate enrolment (Recommendation 4)	\$350,000
Spring enrolment (Recommendation 6)	\$200,000
Subtotal	\$ 600,000

Tuition fee increases (net of tuition reinvestment)

Undergraduate tuition (Recommendation 12)	\$2,700,000
Graduate tuition (Recommendation 13)	\$120,000
Graduate international (Recommendation 15)	\$25,000
Subtotal	\$2,845,000

If all the potential increases in revenue can be realized, the contribution from the proposed increase in undergraduate tuition would represent 22 per cent of the original \$12.82-million operating budget shortfall, and the proposed increase in graduate tuition would represent one per cent of the original budget shortfall. EMC cautions that not only do these recommendations not cover the full amount of the remaining budget shortfall (\$3.98 million), but they are also contingent on the University meeting fairly aggressive enrolment targets.

The next steps for EMC will be to consider specific recommendations on the allocation of the projected increase of at least \$2.4 million in financial aid for 1999/2000, including approximately \$1 million of additional tuition reinvestment funds. It is anticipated that these recommendations will be developed over the next few weeks.

SCUP's Comments on the 1999/2000 MET Operating Budget

THE SENATE COMMITTEE on University Planning (SCUP) presents the University of Guelph 1999/2000 preliminary MET operating budget for review and comment. This budget is a preliminary budget; the final budget will be presented to Senate in the fall semester after confirmation of fall enrolment figures. SCUP commends the Enrolment Management Committee (EMC), particularly Prof. Alastair Summerlee, for the extensive consultation process that has supported the development of the recommendations on enrolment, food/residence costs, student aid and tuition, among others. SCUP also wishes to thank the student caucus of the Student Budget Advisory Group (SBAG) for their insightful comments (see below).

The budget of the University has been shaped by a number of principles that reflect key University values: high quality, accessibility, fiscal responsibility and transparency of information.

The University budget is hampered by the provincial government's failure to remedy the chronic underfunding of higher education. Despite continual advocacy by the Council of Ontario Universities (COU), the Ministry of Education and Training (MET) has yet to even provide stable grant funding, having committed but not confirmed a one-per-cent increase in grants for 1999. SCUP, however, notes and endorses COU's major effort under the banner of "Meeting Ontarians' Expectations" to increase public funding both to restore quality and to respond as appropriate to the impending "double cohort" problem.

SCUP acknowledges that the University faces an initial budget shortfall of \$12.28 mil-

lion. It recognizes that as part of the initial planning process, Guelph has identified \$8.3 million in additional revenues and reduced net expenses, including a one-time employer pension contribution holiday, to remedy some 67 per cent of this \$12.28-million shortfall. The gap has therefore been reduced to \$3.98 million.

The solutions to this \$3.98-million gap include increased charges to parking, higher domestic tuition fees for undergraduate and graduate students and an equivalent increase for international graduate students, and targeted increases in undergraduate and graduate enrolment.

SCUP is supportive of this mixed approach to revenue generation/savings adopted by the University to deal with this shortfall. SCUP believes the enrolment targets proposed by EMC are reasonable but aggressive. For this reason, SCUP does not view increased enrolment as a major budget solution, but rather as a potential remedy for the remaining gap, if quality is not compromised. SCUP recognizes that enrolment results will not be known until November 1999, so SCUP accepts the University's approach that puts increased enrolment revenue in the same category as year-end savings.

Increases in undergraduate and graduate tuition fees will generate \$2.8 million in tuition revenue, net of tuition reinvestment. SCUP notes that this incremental net tuition revenue represents 23 per cent of the initial \$12.28-million shortfall, below the notional percentage (27 per cent) that tuition revenues represent in the total MET operating budget. SCUP also acknowledges that higher tuition fees for entering and in-course students will be offset,

in part, by the additional \$2.4 million available in student financial aid, a 38-per-cent increase over 1998/99, bringing the projected total for student aid from all sources in 1999/2000 to about \$10 million. SCUP endorses the proposed EMC review of available student aid to preserve accessibility of university education and to ensure that students in need are receiving support.

The University has faced significant challenges in light of the ongoing provincial disinvestment in post-secondary education, including how to continue to offer quality education, to recruit students of the highest calibre and to sustain increased enrolment without committing additional financial resources. As in last year's budget, SCUP recognizes that the University cannot defer reinvesting in maintaining quality. To this end, the 1999/2000 preliminary MET operating budget includes \$1.45 million in new targeted quality-maintenance investments beyond those identified in the base budget. SCUP endorses the investment proposals included in the budget.

SCUP recognizes that significant investments in quality are needed to sustain the long-term viability of our programs and the employability of our graduates. SCUP has expressed concerns that long-term solutions must be found to ensure future investments in quality and maintenance of our programs.

SCUP supports EMC's recommendations regarding the differentiation of fees in the current year. SCUP believes, however, that use of differentiation as a means of restoring quality in a competitive environment must now become a priority issue for the University's agenda. SCUP therefore recommends that U of

G undertake an in-depth review of all facets of differentiation in time for appropriate action for the 2000/2001 budget process. Such consideration must include the nature of the program being differentiated and the potential impact on enrolment, quality of the program and accessibility for students.

In conclusion, SCUP supports the University's budget recommendations based on the EMC report and the proposed solutions for addressing the budget shortfall. To this end, SCUP endorses the presentation of an "unallocated" gap position to the Board of Governors with the proviso that additional revenues and cost savings be addressed by fall 1999 to ensure the presentation of a final balanced budget. SCUP remains committed to the revised debt-repayment schedule that B of G approved in 1996 to help the University respond to the Common Sense Revolution cuts. SCUP recognizes that there are still some uncertainties in the 1999/2000 preliminary MET operating budget that must be resolved. These include potential changes to government grants, enrolment in 1999/2000, compensation issues currently under negotiation and the ability to take a pension contribution holiday in 1999/2000.

SCUP urges the University community, B of G and the administration to continue striving to restore public funding for post-secondary education to the national average. The only viable solution to the University's structural or base budget problem and the only way to meet the costs associated with the "double cohort" of 2003 coupled with the province-wide projected double-digit faculty retirements beginning in 2001 is a restoration of public funding.

Report of the SBAG Student Caucus

Introduction

The 15-member Student Budget Advisory Group (SBAG), composed of representatives from 12 elected student groups across campus and three members of the administration, was established in October 1998. All college student governments, the Central Student Association, Graduate Students' Association and Interhall Council are represented, with the exception of the OVC student government, which was unable to provide a representative. The committee has been established to provide a forum for student input into the process for developing the University's operating budget. This report has been prepared by the student members of SBAG.

Our mandate is to provide advice from a student perspective to the President's Budget Advisory Group (PBAG) and the Senate Committee on University Planning (SCUP) throughout the development of the University of Guelph operating budget. The focus of the group is to review, develop and discuss ideas with regard to expenditure controls, cost savings and revenue enhancement to formulate concrete recommendations on budget issues, to be presented to PBAG and SCUP for consideration and action.

SBAG is intended to be a forum for ongoing consultation between students, PBAG and SCUP during the operating budget development process. The group has also actively participated in the consultation process surrounding the work of the Enrolment Management Committee (EMC). This forum is designed to be action-oriented, providing students with an opportunity to make recommendations to administrative groups, to ensure that budget issues are addressed with students in mind.

As recommended by last year's committee, meetings began in October, in advance of the budget development process. The fall semester meetings focused on providing members with an understanding of the University's fiscal situation and the key elements of the budget process. The winter semester meetings were focused more directly on addressing the question of how to bridge the gap between projected revenues and expenses for the 1999/2000 budget year.

The members of the committee have devoted many hours to its work and have taken the time to become familiar with the University's budget and the processes involved in its development. It is the expectation of student members that the recommendations provided in this report will be treated with all seriousness and consideration. The group was founded and continues to work on the premise that student involvement in University processes is highly valued and that student feedback will be taken into account. It is our profound hope that this is indeed the case.

Recommendations for the 1999/2000 University Operating Budget

Ancillary Unit Contributions

Hospitality Services

The committee is pleased to find that the increase in prices for 1999/2000 is relatively minimal at two per cent. But we do recommend that this ancillary unit be required to make an additional contribution to the operating budget next year, in aid of bridging the projected shortfall. We find it difficult to understand why this ancillary unit is unable to make greater financial con-

tributions considering the extensive nature of its operations, the virtual monopoly held over a well-established and stable campus market, and the profit margin of the products and services offered. Prices at hospitality outlets on campus are clearly more expensive than at off-campus sources, particularly on the retail side. The committee is therefore confused at the apparent lack of surplus funds. In our opinion, the efficiency of this unit needs to be thoroughly examined and greatly improved on. By this, we do not mean to imply that staff positions ought to be removed. Rather, we wonder at the fact that this ancillary unit, whose revenues are projected to be in excess of \$24 million next year, should only be able to contribute approximately one per cent of that amount to cover its debt servicing requirement.

Parking services

Although the committee is opposed to increasing fees for students, it agreed that parking was the most reasonable ancillary area to look at in this regard because parking is an optional service for those who choose to commute with their car and park on University property. Members agreed that revenues from Parking Administration could make a contribution to closing the 1999/2000 budget shortfall. Members also agreed that any increase in parking rates should be universally applied. It was noted that residence students would still pay a lower rate due to the decision last year to increase residence parking by a much lower amount than annual commuter parking.

It was also recognized that students who live outside the city must commute and do not have a choice about whether or not to park on campus. It is therefore recommended that student

parking rates be further differentiated, so that students who must commute pay lower rates than students who live in Guelph, particularly in light of the fact that there is a student bus pass for undergraduates.

Furthermore, the committee recognizes that, until last year, parking rates at U of G had not risen for many years. It is therefore recommended that the University set out a long-term plan for parking rate increases to ensure that the current situation, where rates are frozen and then drastically increased to compensate, will not be repeated.

The Heritage Fund

The committee members thoroughly reviewed the nature and purpose of this fund. It is our recommendation that this fund be accessed to finance some of the proposed investments in quality included in the 1999/2000 budget. It is the committee's belief that certain of these investments represent "strategic purposes" for the University as they are "one-time" expenses that provide long-term benefits, i.e., improvements to classroom and teaching labs, increases to graduate student aid and the co-op expansion. We recognize that the increases in library acquisitions and undergraduate scholarships are permanent additions to the operating budget and therefore can probably not be financed by the Heritage Fund.

It is also our recommendation that the start-up costs for the fund-raising campaign, originally gleaned from the contin-

gency fund in the operating budget, be retrieved from the Heritage Fund (see next item).

Fund-raising campaign

The committee was concerned to find that the start-up costs for this campaign were financed from the contingency fund of the 1998/99 operating budget. It is our opinion that contingency monies should be used only for contingency purposes, and that any money left at the end of the fiscal year be considered a year-end saving and applied against the budget deficit. The fund-raising campaign seems to be more aptly classified as a strategic purpose than a contingency, and we therefore recommend that it be financed from the Heritage Fund. Use of money from the operating budget for this purpose appears to be particularly inappropriate because the money raised in the campaign will in all likelihood be specifically directed and will not aid in relieving the base budget deficit.

Further to this point, it is our recommendation that U of G actively pursue undirected donations to the operating budget, or donations that can be used to defray current operating costs, allowing University money to be reallocated to areas of need in the operating budget.

Salaries exceeding \$99,999

The committee is well aware that increases to many of the salaries that exceed this amount are subject to the results of employee group negotiations. We also recognize that salaries on campus, including those of senior administration, were frozen during the era of the social contract. But owing to the fact that U of G is in dire financial need, it is our recommendation that the salaries of senior administrators not increase more than the cost of living. Not only would this help with the deficit problem, but it would also be an act of good faith toward the University community and demonstrate a willingness by administration to share in the financial burden of covering the budget gap.

The budget deficit

It is the committee's understanding that last year's budget, when approved by Board of Governors, included a \$1.7-million gap. It is our recommendation that this year's budget also go forward with a deficit, in anticipation of year-end savings. Last year's savings (not including the pension reprieve) totalled \$0.99 million, and it is our supposition that there will once again be savings this year. It is only reasonable that these be projected for in some way and presented with the budget.

Comments on EMC recommendations

Tuition fees

It is the stance of this committee to advocate for a zero-per-cent increase in both graduate and undergraduate tuition fees for the coming year. We urge the University to consider the impact of rising tuition fees on accessibility, quality of life and the net benefit of a university education for students.

We also urge the University to consider the impact of keeping tuition fees at lower levels in terms of attracting students to U of G. Lower fee levels and non-deregulated programs should be used as tools to "market" Guelph to prospective students.

Graduate tuition fees

The committee considers it unfortunate that EMC did not consider the request for a freeze on graduate tuition fees as it did last year. Graduate students had hoped for a zero-per-cent increase in fees again this year, given that U of G has higher graduate program fees than most universities in Ontario and eastern and western Canada. Given that the first EMC recommendation had proposed a maximum five-per-cent increase, the committee recognizes that the compromise of 2.5 per cent is not as severe. But the committee believes this further increase in already high graduate fees will

conflict with EMC's recommendation to significantly increase graduate enrolment. The committee suggests that increasing tuition without putting any additional effort into facilities and graduate student support will hinder U of G's competitiveness in attracting new graduate students. We therefore recommend a zero-per-cent increase in graduate tuition fees.

The above sentiments on graduate tuition fees also apply to international graduate fees. The committee expresses its concern that increasing fees will be prohibitive for graduate students from other countries. It was noted that particularly at a graduate level, the international perspective and experience gained from having international graduate students play a part in academic, research and campus life are extremely valuable. It would be regrettable if increasing fees were to cause another drop-off in international graduate student enrolment, which was only just beginning to recover the ground it had lost over the past few years.

Undergraduate tuition fees

Although the members strongly advocate a freeze on undergraduate tuition levels, we also recognize that despite all the arguments we may present in support of such a stance, tuition fees will be raised. We therefore recommend no more than a five-per-cent increase in undergraduate fees. This would generate revenue to cover approximately 27 per cent of the budget deficit, which is the same percentage that tuition fees currently represent in the operating budget.

We are also concerned that increases in tuition fees not exceed the amount of money necessary for covering the deficit. Last year, undergraduate tuition was raised 7.5 per cent to help bridge the budget gap. But the money saved by the University's inability to contribute to its pension plans caused a surplus in the budget. This could have been used to offset the tuition increase, but was not. This committee has no desire to see the same situation repeated in the coming fiscal year.

Differentiation and deregulation

Committee members support the recommendation that no further differentiation or deregulation of tuition fees be pursued this year and consider it regrettable that EMC will continue to look at this issue again next year. The committee strongly opposes differentiation and deregulation of fees because they have a severe impact on accessibility, and we strongly urge the administration not to pursue this option in future.

Graduate refund schedule and transparency of fees

The committee agrees that increasing the transparency of tuition fees is generally a good idea, simply because transparency in the money we pay to the University is responsible. But given that the idea of initiating such a plan was initiated when U of G is looking for ways to increase revenues, there was concern that this would be a complicated way of increasing fees for most graduate students so that the overall revenue from graduate tuition could increase.

Additionally, there was concern that the fees for master's programs with major papers and course work, and collaborative programs such as Collaborative International Development Studies, would be much more expensive. It is our understanding that it is also these students who have more difficulty in obtaining external funding because of the interdisciplinary nature of their research, which may not fall into any particular discipline, making targeted grants inaccessible. Similar funding problems exist for students who are not conducting research based on original fieldwork, data collection and analysis. It is the committee's belief that further consultation with graduate students in a wide variety of programs is necessary before any such change is considered further.

Enrolment

Graduate enrolment

The committee wishes to express its concern over the aggressive target of a six-per-cent

increase in graduate enrolment in 1999/2000. It was noted that there are a limited number of faculty members available and willing to supervise graduate student work. Many faculty are already overextended and unable to provide adequate support and supervision to current graduate students, let alone to an increasing number of incoming students. There was concern raised about available lab and other facilities to accommodate a higher graduate student population. In addition, there was concern noted about whether financial support and graduate teaching and research assistant positions would also be increased to be available to the same relative percentage of students, rather than having more students competing for the same limited resources. The committee recommends that if graduate student enrolment is to be increased by such a large degree, then measures should be taken to ensure that the quality of academic and research opportunities available are not allowed to further decrease. It should be at least maintained and ideally improved.

Undergraduate enrolment

The committee has similar concerns about further increasing undergraduate enrolment at U of G when resources remain static. This can only indicate a further decrease in quality at the University, which is not desirable. The committee therefore questions the viability and soundness of increasing enrolment as a solution to the budget deficit when investments in quality will be necessary to support the rising student numbers.

Expansion of summer semester

The committee supports in principle the attempt to increase course offerings and therefore enrolment in the summer semester. Members caution, however, that increasing the number of distance education courses does not necessarily equal an improvement in the quality of education. Furthermore, the committee wishes to point out that increasing tuition fees will probably affect the institution's ability to attract summer semester students as the need to work throughout those months becomes more critical for students to finance their education.

Financial aid

The committee is pleased to find that EMC has recommended that U of G pursue alternative ways of assigning financial aid for students in need, particularly those who are unable to access OSAP but have no support from family, etc. We are also in support of allocating additional money to aid continuing and graduate students at U of G.

We are, however, concerned with the added allocation in the 1999/2000 budget of \$600,000 for merit-based entrance scholarships. It is our opinion that more needs to be done to increase financial aid for students, especially as tuition and other fees continue to rise, rather than putting more dollars into merit-based awards.

The committee therefore recommends that the University actively pursue initiatives to provide more comprehensive needs-based student financial aid.

Payment options

The committee was strongly opposed to the idea presented earlier in the year with regards to a lump-sum fee schedule, whereby students unable to pay all their fees at once would be penalized. We are glad this idea was removed from consideration.

The committee is in support of the University pursuing alternative and more flexible payment options for students and encourages further investigation of these payment plans, with student collaboration.

Lobbying for public funding

The committee definitely believes the effort to lobby the provincial and federal governments to restore public funding to post-secondary education needs to be increased. Committee members wonder why there is not more co-operation among students, staff and faculty in this regard and encourage president Mordechai Rozanski to involve students more

actively in the work he and other members of the Council of Ontario Universities are currently engaged in.

There is also a need to raise awareness, both in the University community and the general public, about the gross underfunding of post-secondary education and its effects on society. Again, we encourage the president and members of senior administration to work with student, staff and faculty groups on these issues.

Other revenue-generation options

Library fines

The committee came to a general consensus that U of G's chief librarian should pursue an increase in library fines in conjunction with the other two universities involved in the new system (Wilfrid Laurier and Waterloo) for the fiscal year 1999/2000. Library fines would not, however, be used to directly cover the projected budget shortfall, but would generate additional funds for student bursaries. It was noted that Guelph is the only university in the Tri-University Consortium that uses fine revenue to fund student bursaries.

It should also be noted that there is a standing Library Appeals Committee that has student representatives. This increase in library fines should not be pursued if it restricts the borrowing privileges of students, but only if it penalizes those who take advantage of the current system.

The Arboretum

The suggestion that a trail fee be charged for the Arboretum was reviewed carefully, and the director of the Arboretum gave a presentation to the committee. The committee agreed that this area should not be pursued as a revenue-generating option because the Arboretum already charges for many programs offered to the community, in addition to playing a significant research role in fulfilling its academic responsibility to the University.

Residence telephone deposits

The option of increasing telephone deposits as a way to bring more revenue into the operating budget was not a viable one as all revenue from residence telephone deposits is automatically allocated to Interhall for student programming.

UC courtyard rental fees

All the funds received from the rental of space in the University Centre courtyard are used to support CSA or UC programming. It was noted that the CSA is in the process of discussing the appropriate balance between the need to raise revenue and the number of times the courtyard is unavailable for casual student use. The committee made no further recommendations on this option.

Cable in residences

Al McInnis, director of Student Housing Services, is currently pursuing this issue. It was noted that although this would be a way to increase revenue generation, it would also be another direct cost to students. The committee recommended that students in residence would have to be consulted to determine if they would be willing to pay for this service.

1998/99 STUDENT BUDGET ADVISORY GROUP MEMBERS

Chris Newell	Student Senate Caucus
Elizabeth Harvey	GSA
Nisa Mairi Tummon	GSA
Jessica Carn	CSA
Effie Gatsinos	Interhall Council
Gabe Frank	FACS-SAC
Devinder Thiara (P98)	CASU
Stephen Wicary (W99)	CASU
Elizabeth Godwin	CBSSC
Tara Sastri	CSSSG
Tara Malcolm	SFOAC
Melissa Douma	CPSSG

UNIVERSITY OF GUELPH 1999/2000 PRELIMINARY MET OPERATING BUDGET

INTRODUCTION

The University of Guelph receives funds from a variety of sources, including government grants, tuition and other fees, research contracts, donations and endowment income. It is estimated that funds from all sources in 1998/99 will total about \$326.6 million. Many of these funds are restricted as to use and cannot be used to support ongoing teaching, research and infrastructure operations. These costs are managed and funded within the Ministry of Education and Training (MET) operating budget. The pie chart below presents all major University revenues by source.

DEFINITIONS/BACKGROUND MET

The Ministry of Education and Training is the provincial ministry responsible for the administration of grants for education, including those for all post-secondary institutions in the province. Historically, MET also controlled all tuition fee increases for degree programs through strict formulas. In 1996, the province deregulated all fees for international students, thereby allowing each university to set these fees. In 1998, further deregulation of fees was announced for all graduate and specified professional undergraduate programs such as medicine, law, dentistry, veterinary medicine and engineering. All other undergraduate fees are only partially deregulated and must conform to MET rules that allow a maximum average increase of 10 per cent (with no one program to exceed 20 per cent), with 30 per cent of the increase set aside for needs-based student aid. Failure to adhere to these rules will result in penalties from the province, including a reduction in the provincial operating grant. For compulsory non-tuition student fees such as athletics and student health fees, MET requires that university and student groups agree on a protocol for fee increases. Such a protocol was signed with student groups at U of G in 1994. All tuition fees and compulsory non-tuition student fees are presented to Board of Governors for approval.

OMAFRA

Unique in the Ontario university system is a contract for ongoing research, services and education between the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)

and the University. In fiscal 1998/99, it's estimated that total revenues will be \$70.7 million, consisting of \$54 million in ministry transfer payments and \$16.7 million in diploma fees and revenues from the sale of goods and services. Although these funds are restricted and must be accounted for separately, they are considered part of the total operating budget because they fund 80 U of G faculty positions, 565 full-time University staff and operating and infrastructure costs. On April 1, 1997, the University and OMAFRA entered into an enhanced partnership whereby operations of three colleges of agricultural technology, the Horticultural Research Institute of Ontario and two major laboratory testing facilities were assumed by the University. A detailed presentation on the entire OMAFRA budget, including the enhanced partnership, is presented separately to B of G.

THE OPERATING BUDGET

The University's total operating budget of approximately \$224.3 million (1998/99) is composed of two major sub-funds described above — the MET operating budget with \$153.6 million in revenues and the OMAFRA contract with \$70.7 million in revenues. The OMAFRA sub-fund has very specific reporting requirements, defined as part of the contract with OMAFRA. The following presentation, titled the "1999/2000 Preliminary MET Operating Budget," presents only the MET component of the University's operating budget. It's called the MET operating budget because its major revenue component is the operating grant from MET.

A final 1999/2000 MET operating budget will be prepared for the November 1999 meeting of B of G, incorporating any major changes to the 1999/2000 preliminary MET operating budget. Included will be fall enrolment revisions and the distribution of any budget line items unallocated at the time of the preliminary budget preparation. The OMAFRA contract budget will also be presented at that time, once final funding levels from OMAFRA are confirmed.

ANCILLARY

Ancillary operations are self-funded service operations managed by the University. Projected total 1998/99 revenues of \$47.3 million for the seven University ancillary operations are derived mainly from the sale of goods and

services. Separate budgets are prepared and approved by B of G for each operation. Because of self-funding objectives, ancillary units are charged for services, including utilities, rent and administration, provided by the MET portion of the operating fund. In 1998/99, the ancillary units were charged approximately \$6.894 million for such services. Some ancillary services also provide a portion of their net income (subject to availability) to fund special academic capital projects or to assist the MET operating budget in meeting its overall budget target. In fiscal 1998/99, two ancillaries (Hospitality Services and Parking Administration) will contribute \$0.3 million for this latter purpose.

CRESAP

The 1991/92 Cresap program was directed at reducing the costs of non-teaching functions only and saved or reallocated \$4.6 million in base funds at a total one-time cost of \$7 million. (Cresap was the name of the consulting firm engaged to lead the review.) With board approval, \$1.2 million of the total savings was allocated each year to the repayment of the deficit incurred by the Cresap program. At the end of fiscal 1997/98, the Cresap deficit was fully repaid. The \$1.2 million in base budget savings was then allocated toward repayment of the SERP deficit (see below).

SERP

In March 1994, B of G approved the offering of a special early retirement program (SERP). The main objective of SERP was to reduce total University ongoing compensation (salary and benefit) costs without resorting to layoffs or other involuntary restructuring methods. Eligible employees had the opportunity to leave under the program by May 1, 1996, at the latest. The final actual take-up rate was 44 per cent of all eligible employees (247 employees accepted) at a one-time cost of \$26.2 million.

SERP was targeted to cover the structural or base deficit created in 1993/94 because of major provincial grant reductions that were temporarily covered with one-time savings negotiated under a local social contract agreement, e.g., pension contribution savings and days off without pay. In total, approximately \$10 million in base salary and benefit savings, net of approved rehiring, was identified over the three fiscal years 1994/95 to 1996/97. Originally,

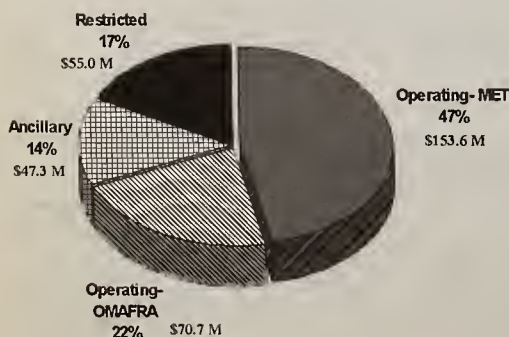
\$6 million of these base savings was temporarily allocated to repay the costs of the program over a board-approved schedule that concluded in fiscal 1998/99. (When combined with the Cresap repayment of \$1.2 million, the original total repayment was therefore \$7.2 million per year). But due to the extraordinary size of the Common Sense Revolution (CSR) grant cuts (see below) imposed by the province in 1996/97, the administration requested from the board and received approval for an extension of the repayment period to 2003/04. By doing so, \$5 million of the originally scheduled annual repayments was used to avoid further base expenditure reductions, including involuntary terminations. The remaining savings of \$1 million will be combined with the Cresap repayment (\$1.2 million) and directed toward deficit repayment until 2003/04.

CSR (1996/97) REDUCTION

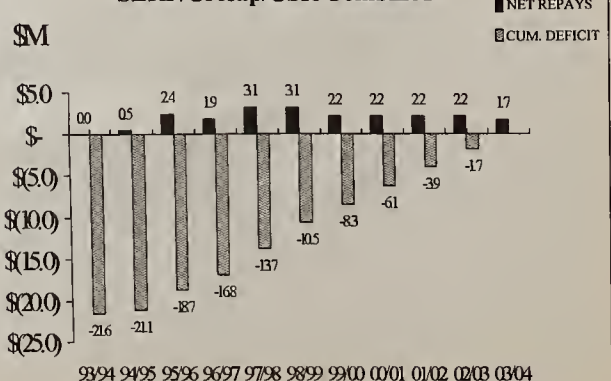
The Common Sense Revolution is the label used to refer to dramatic reductions in provincial operating grants of \$15 million or 15.4 per cent, which was the largest component of an initial 1996/97 total budget shortfall of \$19.6 million. Part of the solution in meeting this challenge included 1996/97 reductions in University departmental budgets of \$8.9 million. The grant reduction was the University's share of grant reductions of more than \$285 million or 16.2 per cent of the Ontario university system's allocation. MET also permitted up to a University-average 20-per-cent tuition fee increase and the deregulation of international tuition fees.

To enable voluntary resignations to assist in meeting the CSR budget reduction target, U of G incurred approximately \$2.5 million in termination costs, charged in 1995/96 and 1996/97. These costs were primarily lump-sum payments to employees. In addition to the rescheduled SERP deficit repayment plan noted above, the board approved a temporary deficit, not to exceed \$1.89 million (of the \$2.5 million in total costs), which was to be repaid in equal portions of \$0.945 million over a 24-month period starting in fiscal 1997/98. The impact of these decisions on U of G was presented in detail in the 1996/97 operating budget. The present status of the total deficit, including projected repayments, is shown in the graph below.

University of Guelph
Estimated 1998/99 Total Revenues



Deficit Repayment Schedule
SERP/Cresap/CSR Combined



The University carried

1999/2000 INITIAL FINANCIAL PLANNING ASSUMPTIONS

1. OPENING BASE SURPLUS/DEFICIT

One-time budget adjustments occur only in the fiscal year in which they are recognized. Recent examples include pension contribution savings from the operating budget, one-time reductions in department budgets and carry-forward surplus/deficits from prior years. (It should be noted that in the current budget, the SERP deficit-repayment obligation of \$2.2 million is considered a base or ongoing commitment until the year 2003/04.)

2. COMPENSATION (SALARIES AND BENEFITS)

The \$4 million also includes adjustments in

3. INVESTMENTS IN QUALITY MAINTENANCE

LIBRARY ACQUISITIONS

GRADUATE STUDENT AID

CLASSROOM MAINTENANCE

UNDERGRADUATE SCHOLARSHIPS

CO-OPERATIVE EDUCATION

4. PROVINCIAL OPERATING GRANTS

OMAFRA CONTRACT

University of Oregon									
1999/00 Preliminary MET Operating Budget									
By Major Unit and Expense Category									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Total Salaries	Total Benefits	Total Personnel	Operating	Dept Cost Recovery	Total Expenses	Institutional Recoveries	Revenues	Net Budget
<u>Institutional Revenues and Recoveries</u>									
Provincial Grants								60,072	60,072
Tuition								62,105	62,105
Other Institutional Revenues								4,858	4,858
Total Institutional Revenues								146,835	146,835
OMAFRA Service Fees						7,050		7,050	
Cost Recoveries from Ancillaries						6,355		6,355	
Total Institutional Revenues and Recoveries								146,835	160,384
<u>Institutional Expenses</u>									
Teaching Units	76,288	12,879	90,148	20,304	(3,181)	107,271	(6,360)	(9,016)	91,905
Library Operations and Acquisitions	5,119	1,113	6,232	4,536	(44)	10,230		(487)	10,223
Academic Services	6,544	1,438	8,082	1,773	(1,041)	8,814		(170)	9,684
Student Services	3,363	752	4,715	2,126	(523)	6,312		(3,545)	2,467
Total Teaching and Academic Services	91,915	17,182	108,177	29,739	(4,799)	132,117	(6,360)	(14,972)	126,885
Physical Resources	12,910	2,856	15,766	14,171	(1,532)	29,405		(818)	29,324
Institutional Services and General Exp	13,834	2,804	16,738	9,513	(1,432)	21,719		(468)	21,251
University Contingency				600		600			600
Total Institutional Expenses	146,739	22,842	148,881	63,023	(10,863)	189,841	(6,360)	114,621	162,864
Pension Contribution Savings (PCS)				18,100		18,100			(8,100)
Unallocated Onetime Savings/Revenues				11,000		11,000			(1,000)
Net Budget	146,739	22,842	148,881	45,843	(10,863)	177,661	(20,255)	(153,465)	2,220

Notes

1. *Total Salaries* include budgeted costs for all regular full-time, on-staff and part-time employees including Graduate Teaching Assistants.

2. "Total Benefits" include the budgeted employer benefit costs, allocated in proportion to salaries.

3. 'Opening Costs' include the budgeted amount departments have allocated for a great variety of costs such as equipment purchases.

maintaining day-to-day operations, travel and renovations. Actual costs may vary significantly to budget, however budget managers must cover any costs incurred over budget by reducing expenses in other categories or increasing departmental revenues.

4 "Opt Cost Recovery" are non-cash transfers based on inter-departmental services provided such as telephone, mail, laboratory.

physical resources, work orders, vehicle rentals and printing.

6 "Revenues" in departmental values are external cash charges for services provided through either the tax-exempt and nonprofit contracted services e.g. VetTeaching Hospitals and non-audit courses. Department revenues can also be premoisigrants or fees

charged for restricted or designated purposes such as MET grants for students with disabilities, athletic fees and student health fees.

allotted to offset costs in the Student Services Division

the total allocation amount with which budget managers are credited and measured at the end of each fiscal year. Any surplus or

deficit at year-end within policy limits credited to or charged against the unit as a "Carryforward" in the following year's budget.

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levels. This assumption has been made even though official notification has been received from the ministry that a reduction in contract funding is "possible" in fiscal 1999/2000. Any reduction in contract funding will first affect the direct cost of OMAFRA-funded projects. Normally, however, a proportional share of any reduction is applied to the infrastructure cost component, thereby immediately affecting the MET operating budget.

Discussions are occurring at senior University and ministry levels to confirm that the provincial funding under the contract remains at its current level of \$54 million.

5. INTEREST INCOME

The operating fund receives interest earned on the University's annual cash flow in the operating portfolio, exclusive of endowments (\$1.755 million for 1998/99). Based on current short-term rates and projected improved cash flows, including repayment of the SERP/Cresap deficit, interest income is expected to increase by \$150 million over 1998/99 levels.

6. 1999/2000 PENSION CONTRIBUTION SAVINGS

It is assumed that the University will be able to take a PCH approximately equal to that taken in fiscal 1998/99 or \$5.1 million. The ability to realize this saving is subject to the financial condition of each pension plan during the University's fiscal year May 1, 1999, to April 30, 2000. Because the pension plan fiscal year is Oct. 1 to Sept. 30, the financial conditions of the pension plans and therefore the availability of any PCH cannot be confirmed until well into the University's fiscal year. (For the University's 1999/2000 MET budget, the earliest that confirmation can be made is after the pension plans' actuarial report for September 1999 is presented, normally in March 2000.) Pension contributions are considered to be one-time savings only, and although they contribute to meeting the University's annual

budget target, they do not assist in reducing the base or structural deficit. If sufficient flexibility is not available in the plans, other adjustments will have to be made to identify the necessary funds within the current overall budget target.

7. RESIGNATION AND RETIREMENT SAVINGS

An estimated \$0.5 million in net savings will be available as a result of regular retirements and position turnover with planned replacement at lower salaries. This estimate is net of any funds required for replacement salaries, prior budgetary commitments or approved alternative uses for savings.

8. ENROLMENT FLOW THROUGH

In the 1996/97 budget, the University undertook a plan to increase enrolment through increases in fall semester one (first year) intake. This action reversed the previous (1992 to 1995) enrolment plan, which had targeted an overall decrease in undergraduate enrolment to mid-1980s levels. In 1996/97, semester-one enrolment increased by about 429 students compared with 1995/96 intake levels. This intake level was maintained for 1997/98. An additional target increase over 1997/98 intake levels of about 300 semester-one students was set and achieved in the fall of 1998. Because of these increases in intake, total University undergraduate enrolment will increase in 1999/2000, generating an estimated \$1.6 million in additional revenue. This estimate is based solely on the impact of increased enrolment as a result of prior years' additional semester-one intakes "flowing through" to graduation (normally semester eight). The calculation assumes 1998/99 levels of tuition fees, new intakes and attrition rates.

9. SUMMARY OF THE INITIAL PLANNING DEFICIT

The following is a table quantifying the results of the initial 1999/2000 planning assumptions. The remaining budget document is

devoted to the incremental changes to the budget proposed to address or close the initial deficit of \$3.98 million. (Numbers in brackets indicate an increase in costs or deficit; no brackets indicates an increase in revenues or cost savings.)

Of the initial shortfall of \$12.285 million, remedies involving new revenues and cost savings of \$8.305 million (67 per cent of the total shortfall) were found. This left a "gap" of \$3.98

million. Solutions to meeting this remaining gap (which has to be eliminated) include additional contributions from ancillary operations, enrolment increases above those already recognized in the flow-through calculation of \$1.6 million noted above, a tuition fee increase and uncommitted year-end savings from 1998/99. If none of the above is sufficient to cover the \$3.98 million, budget reductions remain the last option.

	\$ Millions
Opening base deficit: result of ongoing cost increases covered in prior years from one-time savings such as pension contribution and year-end savings.	(6.800)
Provision for 1999/2000 salary and benefit increases (subject to negotiations)	(4.000)
Ten-per-cent increase in funding for library acquisitions	(0.350)
Increase in graduate student aid	(0.235)
Increase for maintenance of classrooms and teaching labs	(0.200)
Increase in undergraduate student aid	(0.600)
Increase for co-op program expansion	(0.100)
SUBTOTAL INVESTMENTS IN QUALITY MAINTENANCE	(1.485)
TOTAL BUDGET SHORTFALL	(12.285)
Increased provincial grants; from one-per-cent increase in general operating grant and "fair funding" allocation.	0.955
Increased interest income on operating cash flow.	0.150
Pension contribution savings; realized from employer pension contributions in fiscal 1999/2000.	5.100
Resignation and retirement savings; realized as a result of retirements and employee turnover.	0.500
Additional revenue from increased enrolment due to the flow through of prior years' increased intake.	1.600
SUBTOTAL NEW REVENUES AND COST SAVINGS	8.305
INITIAL PLANNING DEFICIT (the "gap")	(3.980)

C. 1999/2000 MET PRELIMINARY BUDGET — ADDRESSING THE INITIAL PLANNING DEFICIT

The following section contains specific 1999/2000 proposals, with their estimated incremental budgetary impact on the 1999/2000 MET operating budget, that address the initial

planning deficit of \$3.98 million. Incorporated with the initial planning assumptions presented in the previous section, these proposals make the 1999/2000 preliminary MET operat-

ing budget. Resultant budget allocations by major organizational unit showing revenues and expenses with accompanying notes are shown in table form on the previous page. The

preliminary MET operating budget compared with 1997/98 actual and 1998/99 forecast results is available in table form on the University's Web site.

C.1 Tuition Revenues: Enrolment and Tuition

The tuition revenue budget is affected by both fee rate changes and changes to enrolment numbers.

TUITION FEES

As part of the December 1997 two-year provincial funding announcement, the maximum increase in 1999/2000 tuition fees that was permitted for regulated programs was a 10-per-cent discretionary increase on an institution-wide basis (no single program could exceed a 20-per-cent increase). The province also mandated that a minimum allocation of 30 per cent of the resulting tuition revenue increases be set aside for student aid. In addition, further deregulation of fees was announced for all graduate and specified professional undergraduate programs. (Deregulation means that fee changes are no longer controlled by the province nor form part of the underlying calculations for the MET operating grant.) This deregulation follows the government action in 1996/97 to deregulate all international student fees. After extensive discussions and analysis, the Enrolment Management Committee (EMC) made several recommendations specific to tuition:

- That University rates for domestic undergraduates be increased by 9.5 per cent in all programs in 1999/2000.
- That the University not deregulate or further differentiate fees in any programs in 1999/2000.
- That full-time Canadian resident graduate fees and international graduate fees be increased by 2.5 per cent in 1999/2000.

If these or other recommendations are accepted by the University administration, they will be recommended to Board of Governors for approval concurrent with the 1999/2000 budget.

ENROLMENT

In the 1996/97 budget, the University undertook a plan to increase enrolments through increases in fall semester one (first year) intake. This action reversed the previous (1992 to 1995) enrolment plan, which had targeted an overall decrease in undergraduate enrolment to mid-1980s levels. In 1996/97, semester-one enrolment increased by about 429 students compared with 1995/96 intake levels. This intake level was maintained for 1997/98. An additional increase over 1997/98 intake

levels of approximately 300 semester-one students was set and achieved in the fall of 1998. No significant change is proposed in the 1999/2000 budget from the current (1998/99) semester-one undergraduate intake level of approximately 3000 students.

EMC recommendations do, however, include significant enrolment-target increases in graduate and spring semester enrolment that would, if realized, contribute net revenues to the University budget. Action will be taken to attempt to achieve these targets, but given the uncertainty with both the revenues and costs associated with increasing these targets, no amount will be factored into the budget at this time. Results will be reviewed as part of the update to the budget prepared in November 1999.

Tuition revenue increases are consistent with the fees recommended to B of G and enrolment estimates.

Tuition revenue increases	\$3.900 million
----------------------------------	------------------------

To meet the MET requirement for a 30-per-cent reinvestment of new tuition revenue for student aid, there will be an estimated increase of \$1.1 million (or 44 per cent) in the current 1998/99 budget of \$2.5 million. The total 1999/2000 budget for the MET-mandated tuition reinvestment is now approximately \$3.5 million. The calculation of this additional student aid commitment is consistent with MET guidelines established for this purpose starting in 1996/97.

Tuition reinvestment and student aid	(1.100) million
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Total student aid committed in the MET operating budget now exceeds \$6.2 million (refer to the table on the previous page). Significant additional funds available for student aid at the University are recorded in non-operating accounts (i.e., annual donations recorded as restricted funds and endowments, including the ACCESS program). It is estimated that when combined with funds from the operating budget noted above, total University funds from all sources available for student aid in 1999/2000 will be approximately \$10 million. This level of support represents a 32-per-cent increase over \$7.6 million allocated for student aid from all sources in 1998/99 and a 525-per-cent increase when compared with 1991, when \$1.6 million was spent on student aid.

The net income increase from tuition revenues (fees and enrolment) is \$2.8 million (\$3.9 million in gross revenue less the incremental student aid requirement of \$1.1 million). It is estimated that the increase in income due to tuition fees covers about 23 per cent of the total of costs and investment requirements of \$12.285 million identified in the initial planning set of assumptions.

Net income increase	2.800 million
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C.2 Budget Support from Ancillaries

To assist in meeting the University's 1999/2000 budget target, Parking Administration will contribute net revenues to the MET operating budget of \$0.1 million. This is considered a one-time contribution and will not affect the long-term viability of operations.

Budget support from ancillaries	0.100 million
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C.3 Unallocated One-time Savings or Revenues

To achieve a balanced budget (including required deficit repayments), the University has to identify a further \$1.08 million in cost savings or increased revenues. The first priority of any unallocated year-end funds available after review of 1998/99 results, including the grant and tuition revenues over budget, unallocated contingency funds and the utilities costs under budget, will be to cover the unallocated savings target. Although the current forecast indicates some of the unallocated target of \$1.08 million can be covered from year-end savings, confirmation will not be made until after the year-end is completed and audited in July 1999. This represents about nine per cent of the shortfall.

Any additional 1999/2000 revenue from meeting or exceeding enrolment targets or unexpected improvements in the grant projections will be applied to this item if necessary. The final specific allocation of this account will be made and presented to the board in November, after fall enrolment is confirmed.

Unallocated one-time savings/revenues	1.080 million
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TOTAL PROPOSED SOLUTIONS TO THE INITIAL PLANNING DEFICIT	3.980 million
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LITERARY HISTORY IN THE MAKING

English prof clicks on a new way to publish scholarship in the humanities

BY MARY DICKIESON

IN ONE HAND, Prof. Susan Brown, Literatures and Performance Studies in English, holds a rare 19th-century British gift book. With the other hand, she clicks a computer mouse. The juxtaposition of the two research tools she holds creates a mental image of what Brown is trying to do in the Orlando Project — produce a full scholarly history of women's writing in the British Isles and publish it in an electronic format that will allow users to search vast volumes of biographical information, critical discussion and contextual materials in seconds.

Depending on the needs of the scholar who holds the mouse, the Orlando textbase may generate a list of the women who wrote for the gift book's publisher and offer a description of what they wrote. Another click could identify those writers who went on to greater literary careers and describe how their work was received by their historical peers. Yet another search could show connections between women who wrote poetry, or those who addressed feminist issues, or those who combined writing with art or teaching or motherhood.

There seems no end to the questions one might ask of this literary history, just as there is no foreseeable end to the Orlando Project itself. Brown must take credit for that because it was she who convinced colleagues at the University of Alberta that electronic media offered greater scope and storage capacity for the kind of detailed research they planned to include in this literary history.

"I had no idea what that would entail," she says. "The humanities computing side of the project has been bigger than we thought, but that is also what is making Orlando more exciting."

University of Alberta arts dean Patricia Clements and English professor Isobel Grundy invited Brown to join the project in 1991 as co-investigator because of her expertise in Victorian literature. She had just joined U of G after completing a PhD with Clements at Alberta. Each of the women will write a volume of biographies that, when combined, will provide a history of women writers in the British Isles from the 14th century to the 1960s. An introductory volume will contain a complete chronology of women writers who are part of this literary history.

When completed, the electronic text and a printed version will complement the 1990 publication of *The Feminist Companion to Literature in English*, a reference written by Clements, Grundy and Virginia Blain. It was the overflowing files of material that wouldn't fit into *The Feminist Companion* that led to the idea of a history of women's literature in the British Isles and an examination of the culture in which they wrote.

"We don't have a space problem now," says Brown, who hopes to continue working on the maintenance and expansion of the Orlando Project well beyond the six-year effort that is being funded by a \$1.6-million grant from the Social Sciences and Humanities Research Council and the universities of Alberta and Guelph.

The project is named after the fictional character in a 1928 Virginia Woolf historical fantasy that provides its own description of the development of a female writer. Orlando is the name of the character who begins to write as an Elizabethan gentleman and emerges as a fully developed female writer in Woolf's own time. The Orlando Project team was attracted to Woolf's historical speculation because of its double focus on women's writing and history, and because of its feminism and its depiction of the complex conditions under which women have written.

Brown and her colleagues are doing much the same thing and are finding, as Woolf suggested, that an accurate portrayal of literary history goes well beyond a traditional linear view of the past. Although developed to have a strong chronological emphasis or backbone, Orlando's electronic textbase will permit users to delve into the shifting layers of the culture and the times that produced such a tremendous body of work by Britain's women writers.

With hundreds of connections and hundreds of thousands of elements embedded in the textbase, the problem facing the Orlando team is how to give users enough guidance so they can find everything the database has to offer. All of the co-



investigators have learned more about computer technology than they thought possible, says Brown. Although the crucial tools have been developed in full collaboration, the primary responsibility for making Orlando's technological tools work rests with Susan Fisher, Terry Butler and Susan Hockley, University of Alberta specialists in humanities computing.

Brown was initially attracted to the project because of her interest in literary history, but says the electronic format has led her to explore literature on a scale she wouldn't have otherwise thought possible.

"We're developing literary history in a way we would not have done without computers. The Orlando Project is about the impact that using technology has on the way we initiate scholarship and on how we deliver scholarship, publish it. We're learning how to use these new tools — powerful tools that are not generally adapted to work in the humanities."

The project relies on the non-proprietary encoding language SGML (standard generalized markup language), chosen because it's an international standard that allows the project to devise encoding principles based on its intellectual priorities and at the same time draw on the growing range of editing and delivery tools available for SGML. It will also enable researchers to link Orlando's textbase to other humanities computing projects, such as the women's writing projects under way at Brown University in Rhode Island, Emory University in Atlanta, Indiana University in Bloomington and Nottingham Trent University in Britain.

What makes the Orlando Project different from these other projects is that Brown and her colleagues are not collecting primary material but are encoding a literary history as they write it. Instead of reading an online version of the text of Anna Leonowens' memoirs, for example, Orlando users will find references to important literary reviews and analysis of her work, as well as links to subjects as diverse as Britain's colonization of India and the role of ethnicity in establishing English social status. "We're describing how her work has been received in history," says Brown, "and unlike a standard reference work, we give the source of the information."

She says the textbase will enable future scholarly work by giving researchers more information more quickly and enabling them to identify source material from a variety of access routes.

Brown's desire to achieve maximum flexibility in the end product has challenged her own research methods. When she digs into literary reference books and browses library shelves, not only is she searching for significant biographical and con-

textual information, but she is also looking for connections between material.

She says the project has created for her a sense of discovery on a grander scale, but she still relishes the ongoing pleasure of digging for material and the satisfaction of finding an occasional treasure like the 19th-century gift book that turned up in the new storage annex operated jointly by the libraries at U of G, the University of Waterloo and Wilfrid Laurier.

"This volume should probably be moved to the library's rare book collection," says Brown, who explains that annuals or gift books were a popular and profitable form of publishing in 19th-century England. The volume she found in storage was published by Victoria Press, a firm established to demonstrate that women could succeed in trades generally restricted to men. The press met with considerable opposition from male labourers, but was an important part of the first wave of feminism in Britain.

The production of annuals in general created a network of professional women writers who had a tremendous impact on literature in the latter part of the 19th century, says Brown. And just think of the connections between important literary figures, feminism, British labour disputes, the use of art in publishing, the social mores surrounding suitable occupations for women, and on and on. No wonder the Orlando team had trouble limiting themselves to only 252 subject tags. In the final stages of the project, they are now grappling with ways to allow users to follow their own intellectual pathways through the textbase.

The Orlando Project is rounding a corner in humanities computing, and although it is still more than a year away from publication, the methodology is already attracting the attention of other literary scholars, historians and sociologists. Brown sees great potential for the project to grow by expanding beyond the geographical boundary of the British Isles or by adding satellite projects on other topics.

"I think one of the nice things about our system is its potential for people to come up with another angle or a different approach to literary research. Put together with primary text projects, we hope for a very rich collection on women's writing."

The project is turning yet another corner in humanities research in its development as a team effort. Most scholarly research is solitary work with perhaps one or two collaborators. The Orlando Project has six co-investigators and more than a dozen support staff, post-doctoral fellows and graduate research assistants on two university campuses. In addition, it's a project in constant flux that expects to train more than two dozen graduate students before the first version is published in 2001.

"The work of graduate students is core to the project, and they are given unusual responsibilities," says Brown. They are doing the kind of library research that is common to most humanities graduate programs, she says, but they are also writing critical text, making judgments on how to tag the material so that it will be usable and testing the computing processes. The students working on the Orlando Project are gaining experience in collaborative work and an understanding of their research as part of the larger work of the discipline. They are also picking up marketable skills in humanities computing and are learning how to shape technology to serve the needs of scholarship.

Several of the Guelph master's students who have worked with Brown have used those skills to open up new career opportunities. Tina Cheng finished her master's degree in 1997 and is now working for a legal publisher that uses SGML. Samantha Wrigley, who finished in 1998, landed a public relations and Web development job with a Mississauga software company. Shauna Barry, Mary Elizabeth Leighton and Aimeé Morrison have gone on to PhD programs at Dalhousie and the University of Alberta.

It's still undecided whether these graduates will see their work published initially on an Internet site or made available on CD-ROM, says Brown, but she expects the first version of Orlando's literary history to appear near the end of 2001. To learn more about the Orlando Project and view links to related projects, visit the Web site www.ualberta.ca/orlando.



ON STAGE

Drama students enact a scene from *Waiting for Lefty/The Agitprop Project*, which runs March 15 to 19 at 8 p.m. and March 20 at 7 p.m. at the Inner Stage. Tickets are \$6 and \$8 and are available at the UC box office.

PHOTO BY MARTIN SCHWALBE

Radiation Available for Pets

Veterinary Teaching Hospital prepared to treat five cases a week

OVC's VETERINARY Teaching Hospital (VTH) increased the availability of its radiation therapy unit in January, allowing the hospital to offer wider cancer treatment for companion animals.

The four-year-old unit had not been operating to full capacity because of equipment limitations and the need for specialized staff to operate the unit, says VTH director John Tait, but following some upgrades and staff additions, the hospital is now prepared to treat five companion animals a week.

"This is the only cobalt radiation therapy unit for animals in Canada," says Tait. "We'd like to service as wide a geographic area as possible."

The hospital's caseload consists

mainly of referrals from practitioners in Ontario, but patients are also accepted from outside the province and from the United States.

The Frank and Martha Thompson Radiation Therapy Unit provides radiation treatment for cancerous tumours similar to those seen in humans, but the equipment is not as technologically up to date as that currently used in human hospitals, says Tait. In fact, the VTH unit is made up of hardware retired from human treatment centres. It is still suitable for veterinary use, however, and allows the therapy to be more affordable for pet owners, he says.

OVC acquired the radiation therapy unit with support from U of G's Pet Trust, which funds research

benefiting companion animals. Pet Trust also supported the equipment upgrades needed to allow full-time use of the unit.

The VTH's cancer patients, which are mostly dogs, receive anywhere from three to 20 treatments or fractions under a general anesthetic. Radiation therapy can be used on its own or in combination with surgery or chemotherapy. The goal of radiation therapy is to ease pain, relieve cancer symptoms and curtail the spread of the disease.

Although radiation therapy does not usually provide a cure, it can provide additional months or years of a happy, comfortable life for a dog or cat.

BY GAYLE ANDERSON

OBERAMMERGAU

Royal City American Express Travel

Passion Play 2000

May 19-June 5, 2000

Hosted by Norm and Jean Jary



This once in a decade event features a cast of thousands performing the Passion of Christ against a natural backdrop of the Bavarian Alps.

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Resume must be received by April 6, 1999. Quoting file AF-173, send to: Bonnie Marson, Agriculture and Rural Division, Ministry of Agriculture, Food and Rural Affairs, 1 Stone Road West, 3rd Floor, Guelph, ON N1G 4Y2.

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BOARD OF GOVERNORS

Continued from page 2

tation. A governor suggested that the University review the donation guidelines in two to three years. It was agreed they would be reviewed through the external relations committee.

An internal governor asked if any thought had been given to establishing a committee to review ethical issues related to which corporations the University would accept donations from. Scadding said the University by its very nature is constantly questioning and has these kinds of debates regularly. Ethical decision-making is at the very essence of university values and decision-making, he said. He

suggested that an ethics committee would not be viable because it raises the question of "whose ethics" and could become politicized.

AD HOC COMMITTEE DISCUSSES BOARD ISSUES

Simon Cooper, chair of the ad-hoc committee on board issues, advised B of G that, at its February meeting, the committee discussed the first of four issues it will be examining: orientation, clarification of members' role, terms of appointment and committee composition. A full report will be presented to the board in May.

Y2K REPORT UPDATE

Sullivan presented for information the executive summary of an interim report prepared by the University's Year 2000 committee; the full report will be forwarded to the audit committee for its March meeting. The report summarizes the University's progress in dealing with the so-called millennium bug (see story on page 1). Sullivan expressed the University's appreciation to board member Christine Atford, IBM and Ad Library, IBM's general manager, transformation 2000 services, for their assistance in assessing the University's progress.

Y2K Report Calls for Action Plan

Continued from page 1

His group has recommended that the University integrate these contingency plans in a single institution-wide emergency preparedness plan. Such a plan would ensure an orderly resumption of U of G's teaching and research functions following a disaster or emergency, not necessarily related to the Year 2000.

The report calls for an action plan outlining duties and responsibilities during the date change. As with many institutions, Guelph will shut down all but essential computing services during the changeover, then do an orderly restart to avoid roll-over issues and to pinpoint any

date-related problems. Other areas whose applications cannot be shut down, such as Animal-Care Services and the power plant, will require contingency plans and staffing during normal holiday hours.

The committee also recommends that security, human resources and student counselling services draw up plans to address disruptions or fears born of millennial anxiety.

The University's Year 2000 Committee, a multidisciplinary team of specialists from across campus, has met regularly since mid-1997 to identify date-sensitive areas and the potential impact of the date change on campus systems, to determine

Y2K compliance among external suppliers, to address and promote awareness of Y2K issues, and to recommend strategies to Executive Group.

According to a recent IBM report, Canada is among the countries best prepared for the date change. "Canada, the United States and Israel are among the leaders in the world," says Blain. "The real concerns are in the Third World and the Far East." He notes that U of G exchange programs in some parts of the world might be affected as a result.

BY ANDREW VOWLES

Come See How Ontario's R&D Strategy Is Changing!

Dr. Cal Stiller, Chair of the Ontario Research and Development Challenge Fund (ORDCF) Board, and Kenneth Knox, Deputy Minister of Energy, Science and Technology, invite faculty and graduate students to attend a public presentation on the ORDCF.

Tuesday, March 23, 1999

2:30 to 4:30 p.m.

OVC Room 1713

Dr. Stiller and Deputy Minister Knox will discuss the role of the ORDCF, successful partnerships to date and current science and technology policies. They will also listen to your feedback and answer questions on the scope and funding processes of the ORDCF. The ORDCF is a \$500-million 10-year program of the Ontario government to promote research excellence and partnerships.



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A workshop on willow wattle weaving runs April 12 from 9:30 a.m. to 4 p.m. at the Arboretum Centre. Cost is \$32. Registration and payment are required by March 29. To register, call Ext. 4110.

Horticulturist Henry Kock and naturalist Chris Earley lead a one-day workshop on "A Life Zone Approach to Naturalization" April 13 and 20 from 9 a.m. to 5 p.m. Cost is \$55. Registration and payment are required by March 30. To register, call Ext. 4110.

CONCERTS

The Thursdays at Noon concerts continue March 25 with a student soloists' day in MacKinnon 107.

LECTURES

The Guelph-Waterloo Program for Graduate Work in Physics Distinguished Lecture Series presents John Bahcall of the Institute for Advanced Study at Princeton discussing "What Have We Learned About Solar Neutrinos?" March 16 at 4:15 p.m. in MacNaughton 113. A reception follows in the Whippletree.

The School of Fine Art and Music and School of Literatures and Performance Studies in English present "The Image and the Line: A Presentation in Words and Drawings," featuring the work of Heather Spears, a

Governor General's Award-winning poet and artist, March 19 at 10:30 a.m. in MacKinnon 203.

Joan Evans of Wilfrid Laurier University explores "Music and Politics: Stravinsky, Bartok and the Nazi State" March 24 at 1:30 p.m. in MacKinnon 203. The talk is sponsored by the School of Fine Art and Music.

NOTICES

The U of G Debating Society presents a show debate on the topic "Defining the Student's Right to Protest" March 15 at 1 p.m. in the UC courtyard. The debate is sponsored by the College of Arts Student Union and the Intellectual Freedom Forum. The Debating Society will host the third annual North American Novice Open Championships March 19 to 21.

Human Resources Development Canada (HRDC) is again offering a program of wage subsidy for students through the Summer Career Placements Program. Applications are available from the Office of Research, outside room 224 in the Reynolds Building, and must be signature-approved by the Office of Research by March 23. Submission deadline to HRDC is March 26.

A symposium to educate beekeepers and crop growers about the latest developments in pollination technology will be held March 25 at the Holiday Inn. Keynote speaker is Robin Thorp, a retired professor from the University of California at Davis. For more information, call Medhat Nasr at Ext. 6243 or Pat Westlake at 519-565-2622.

OVC students will hold a sale of

Hill's Science Diet dog food March 30 from 9 a.m. to 6 p.m. at the Veterinary Fraternity, 349 Gordon St. Cost is \$15 per 20-pound bag. The food was donated by Hill's in support of student initiatives at OVC. For advance orders, call 836-2730.

READING

The School of Literatures and Performance Studies in English presents Newfoundland poet Michael Crumme, author of *Hard Light*, reading from his new work March 23 at noon in MacKinnon 317.

SEMINARS

Next up in the Axelrod Institute of Ichthyology Loaves and Fishes series is a discussion of "Effective Fish Surgery Techniques" by Glenn Wagner March 16. On March 23, University professor emeritus Eugene Balon examines "Medieval Man-Made Wetlands and Fish Harvests in Southern Bohemia." The seminars are at 12:30 p.m. in Axelrod 168.

The Department of Animal and Poultry Science graduate seminar series continues March 16 with Julie Blair explaining "Low-Protein Diets for Finishing Pigs Supplemented with Amino Acids According to the Ideal Protein Concept." On March 23, Tamara Fernandes explains "Real-Time Ultrasound — Prediction of Carcass Merit in Market Lambs." Seminars are at 11:30 a.m. in Animal Science and Nutrition 141.

PhD student Yuiko Takei is guest speaker in the Department of Family Relations and Applied Nutrition research seminar series March 16 at 2:30 p.m. in FACS 103. His topic is "In Search of Siblinghood: An Inter-

gration of Developmental Psychology, Cultural Anthropology and Sociology."

The Department of Chemistry and Biochemistry presents Erich Grimm of the Merck Frosst Centre for Therapeutic Research outlining "The Co-op Experience of Undergraduate Students at Merck Frosst" at 3:15 p.m. in MacNaughton 222.

The Plant Biology Council presents Donald Zak of the University of Michigan discussing "Elevated Atmospheric CO₂ and the Flow of C Between Plants and Soil Micro-Organisms" March 17 at 12:30 p.m. in Crop Science 117 and Prof. Annette Nassuth, Botany, explaining "Plant Viruses in the World of Plant Biology" March 23 at 3 p.m. in Graham Hall 3301.

Mick Burt of the Huntsman Marine Science Centre in St. Andrews is guest speaker in the Department of Zoology seminar series March 17. His topic is "Some Maritime Marine Parasites: Worms I Have Eaten." On March 26, Lakehead University biologist Doug Morris explains "Habitat and the Evolutionary Paradigm: Testing Theory with Natural Selections." Seminars begin at 4 p.m. in Axelrod 265A.

Next up in the biocchemistry seminar series is graduate student René Rémillard explaining "Toxic Responses to Dioxin: The Role of the CYP1A1 Pathways Versus the C-src Kinase Pathway" March 18 at noon in MacNaughton 222.

The Department of Physics presents Chung-Pei Ma of the University of Pennsylvania discussing "Weighing Superclusters" March 23 at 4 p.m. in MacNaughton 113.

Guest speaker in the Department of Molecular Biology and Genetics seminar series March 26 is Prof. Peter Krell, Microbiology. He explains "Baculovirus Replication" at noon in Axelrod 028.

TEACHING SUPPORT

Teaching Support Services' training and development workshops for faculty and instructional staff continue March 23 at 10:30 a.m. with "Creating Digital Audio" and March 25 at 10 a.m. with "HTML III: Jump Start Your Course Web Site." Register with Helen Martin at Ext. 2973.

THEATRE

Drama students present one-act plays March 25 to 27 and April 1 to 3 at the Lower Massey Hall theatre. All performances begin at 8 p.m. Tickets are \$3 and available at the door.

THESIS DEFENCES

The final examination of M.Sc. candidate Anthony Fishback, Zoology, is March 15 at 9 a.m. in Axelrod 265A. The thesis is "Genetic and Environmental Influences on the Spawning Time and Progeny Growth of Hatchery Rainbow Trout." The adviser is Prof. Roy Danzmann.

WORKSHOPS

Rozena Maart of the School of Literatures and Performance Studies in English will lead workshops on "Race, Class and Gender" March 16 and "The Colonizer and the Colonized" March 23. Everyone is welcome. Maart will also lead a workshop designed specifically for people of colour on "Black Skins, White Masks" March 30. All workshops begin at 4 p.m. in MacKinnon 309.

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IN THIS ISSUE

4 COLLEGE faculty builds a culture of co-operation.

5 FISH skeletons spawn distinctive CD cover art.

6 JUST how nigh is the end?

8 CHARITABLE giving starts with people.

11 TRAVEL writing is a going concern.

13 OVC students study overseas.

Exhibit Marks OAC's 125th

Roots of art collection lie in agricultural college

THE MACDONALD Stewart Art Centre will stage an exhibition of selected works from U of G's art collection to mark OAC's 125th anniversary. "Sowing the Seeds: 125th Anniversary of the Ontario Agricultural College" opens March 31 and continues to July 25. Many of the pieces to be included in the exhibition were acquired through the efforts of OAC.

The University's art collection began early this century when professors at OAC decided that students should be exposed to fine art. The collection now boasts more than 3,000 works of art and has a market value of about \$9 million. It includes works by all of the Group of Seven artists, as well as by such renowned Canadian artists as Oziar Ledue, Christopher Pratt and Alex Colville. Although mainly a survey collection of Canadian art, the U of G collection includes two specializations — contemporary Inuit drawings and the Donald Forster Sculpture Park.

The seeds for the U of G art collection were first sown by O.J. Stevenson, a professor of English from 1916 to 1939, who established a picture fund through the sale of recycled paper and lecture admissions. In 1926, *The Drive*, a large

Continued on page 11



LOOKING FOR A 'SUPER FISH'

Zoology professor Jim Ballantyne and a team of researchers are working to develop an arctic char that can tolerate warmer climates. See story on page 5.
PHOTO BY DEAN PALMER/STUDIO IMAGING

A Coup for Co-op

Guelph undergraduate named Canadian Co-op Student of the Year

UOF G STUDENT Tammy Lee is proud of being recently named the 1998 Canadian Co-op Student of the Year by the Canadian Association for Co-operative Education (CAFCE) and CIBC. She was chosen from 31 nominees from colleges and universities nationwide.

But Lee is equally pleased with another title she has earned: "The Rat Lady." That name was bestowed on her by the clients she lived with for eight months at L'Arche, a home for special-needs adults in Stratford. There, she did back-to-back work terms as a residence counsellor, assisting adults with mental and physical disabilities, including Down's syndrome, autism and schizophrenia.

Lee took her pet rat, Lucy, with her when she moved to Stratford, and the critter immediately became an icebreaker at her new home.

"Moving in was a challenge at first," she says. "Some of the clients had lived there 25 years — it's their home — and you're coming in and living there. But Lucy helped. Many of the people there had never seen a rat before. They'd come knocking at my door asking to look at the rat and



Tammy Lee
PHOTO BY DEAN PALMER

they would start conversations. Soon they started calling me 'The Rat Lady.'"

Lee helped her clients with everything from cooking to balancing their cheque books. "The people who run L'Arche are very supportive," she says. "They encourage you not to see the clients as a 'labelled person,' but to interact with them as you would any other person you live with. I learned a lot from my clients. They motivated me to go into occupational therapy. I loved helping them set goals for themselves."

Lee's enthusiasm for her work is one attribute that caught the atten-

tion of the Canadian Co-op Student of the Year selection committee. Nominees for the annual award must have outstanding achievements and contributions in all aspects of student life — academics, work terms and extracurricular and community involvement.

"Tammy is an ambassador of co-operative education," says Deborah MacIntosh, CAFCE president and director of the career education and placement centre at the University College of Cape Breton in Sydney, N.S. "She exemplifies the very positive role co-operative education plays in the professional and personal development of Canadian post-secondary students."

Uli Wiener, a resource consultant with CIBC and member of the selection committee, adds that Lee "is not only an excellent student, but she also demonstrates a strong commitment to the community she lives in."

Lee, a psychology major in her last semester, has worked as a U of G peer helper for five semesters. She's a member of the Co-Operative Education Student Task Force and hopes to study occupational therapy after

graduation. In addition to her time at L'Arche, she did work terms at the Peel Health Department as a volunteer programs assistant and Huron Feathers Day Camp in Sauble Beach, where she was the special-needs coordinator.

"Tammy epitomizes the ideal co-op student," says Tricia Bertram Gallant, U of G's co-op co-ordinator, who nominated Lee for the award. "She's up for adventure, eager to learn, professional, positive and an intelligent, hard worker. I nominated her not only for that, but also for her patience and her caring for all the co-op students she has helped."

Lee is one of more than 60,000 co-op education students in Canada and 1,000 at U of G, which has had a co-op program for 17 years. Guelph and other universities and colleges across the country are celebrating National Co-operative Education Week March 22 to 26.

Lee says co-op helped broaden her education and experiences. "I got to meet great people and move new places — I never would have done it had it not been for co-op."

BY LORI BONA HUNT

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SENATE REPORT

COU pushes ahead with lobbying efforts to restore quality of Ontario universities

PRESIDENT MORDECHAI ROZANSKI opened Senate March 16 by updating senators on the Council of Ontario Universities' (COU) ongoing efforts to secure government reinvestment in post-secondary education to restore the quality of Ontario universities and to prepare for the growth required to accommodate the double cohort of students expected in 2003. Rozanski chairs COU's committee on government and community relations, which is engaged in conversations with the province over quality issues such as class size, investment in graduate studies, increases in research funding, startup funding for new faculty, student aid and capital infusion for deferred maintenance.

The government cannot wait until 2003 to deal with the quality or double cohort issues, said Rozanski, not-

ing that universities need about 18 months to hire new faculty members and two years' lead time on facilities. But before the University can decide whether it will accept additional students and where, it must have assurances on the quality issues.

Although a U of G double cohort working group has been meeting since December, its focus is technical — to identify issues and questions. It will be succeeded by a policy/planning committee working in association with the Senate Committee on University Planning (SCUP) to consider the larger questions.

As part of COU's lobbying efforts on these issues, the council commissioned an Angus Reid poll that shows the majority of Ontario residents want the government to spend more money on universities, said Rozanski (see the next issue for @Guelph for more details).

SCUP PRESENTS PRELIMINARY MET OPERATING BUDGET

SCUP presented U of G's 1999/2000 preliminary Ministry of Education and Training operating budget to Senate for review and comment. SCUP vice-chair Prof. David Prescott, Economics, commended the Enrolment Management Committee (EMC), and particularly committee chair Prof. Alastair Summerlee, for its extensive consultative process and told Senate that SCUP supports the recommended mixed approach to solving U of G's overall budget shortfall of \$12.28 million. He noted that the tuition increase will generate \$2.8 million in net revenue, about 23 per cent of the solution. But there would also be an increase of \$2.4 million in student aid in 1999/2000, \$1.1 million from tuition reinvestments.

Prescott said SCUP is troubled by the number of one-time solutions being used to deal with a long-term budget situation. The committee therefore recommends that U of G work with members of the University community to lobby the government to restore public funding, particularly in light of the increasing structural deficit and the looming double cohort.

Although SCUP supports EMC's recommendation not to introduce new differentiated fees to current undergraduate programs for 1999/2000, SCUP believes the University should undertake a careful analysis of the issue next year because differentiation may provide a means of reinvesting in quality.

Senate comments on the budget focused primarily on the issues of tuition and differentiated fees. A number of student senators lauded EMC's consultative efforts, but expressed disappointment that the committee has recommended a 9.5-per-cent increase in undergraduate tuition and a 2.5-per-cent increase in graduate tuition. Stu-

dents noted that the increase in undergraduate tuition — an average of \$329 — represents a month's rent for many students or a semester's supply of food.

Dee Madden, Central Student Association internal commissioner, urged senators to think about the long-term effects of tuition increases — students graduating with debt loads in excess of \$40,000 and unable to contribute to the economy while repaying the debt, and qualified students choosing not to attend university at all because they can't afford to come. Kirsten Mercer, co-chair of Student Senate Caucus, also expressed concern about the effect of rising tuition on student involvement in campus life. Many students don't have the time to get involved in student government or leadership roles because they're too busy working to pay their tuition, she said.

While commending EMC's recommendations on student assistance, student senators said financial aid is not a solution. "It's a Band-Aid to a deeper wound," said one.

Students and faculty senators alike echoed SCUP's concern about U of G's reliance on short-term solutions to a long-term financial problem. They said the University must continue to lobby the government for increased funding to get at the root of the problem. It was also suggested that the University study revenue generation more closely as part of a long-term approach.

Rozanski noted that Board of Governors is also asking how much longer the University can continue to rely on one-time solutions. In addition, the board wants to know what contingency plan is in place if more government funding does not appear. The preferred long-term solution lies in increased government funding, he told senators, but other approaches, including revenue generation, will be considered.

EMC's recommendation that U

of G consider the advisability of introducing further fee differentiation at Guelph in future years — and SCUP's proposal of an in-depth study of the issue — prompted much discussion among senators. Several students said fee differentiation poses a barrier to accessibility, preventing qualified but financially disadvantaged students from entering programs they would like to take. This, in turn, could lead to programs deteriorating because of a decline in the quality of students enrolling in them, they said. One student suggested that the reason U of G has resisted widespread fee differentiation in the past — and should continue to do so in the future — is because it values the universality of education.

A faculty senator said it wasn't clear whether an aggregate increase in tuition for all students is more punitive than differential increases based on academic program. It was suggested that differential fees may provide part of the needed solution to the University's structural budget problems as long as these tuition increases are matched by increases in financial aid.

Rozanski stressed that fee differentiation was not being considered solely as a revenue generator, but as a way to invest in the quality of U of G's programs. Provost Iain Campbell cited Guelph's engineering program as an example where tuition fees are less than at other universities, but the quality may be suffering as a result. Lower fees translate into fewer technicians, higher faculty/student ratios and obsolete equipment, he said. And that in turn affects the quality of the education provided, the attractiveness of the program to prospective students and the job prospects of the program's graduates. It was also suggested that maintaining a fee structure below that of provincial

Continued on page 11

@GUELPH

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FOUR SEASONS PRESIDENT VISITS

John Sharpe, president and chief operating officer of Four Seasons Hotels and Resorts, will visit the Guelph junior branch of the Canadian Food Service Executives Association (CFSEA) March 29 and give an open presentation to students and faculty at 5:30 p.m. in Room 129 of the HAFA Building. His talk on "Strategic Planning at Four Seasons Hotels and Resorts" will be followed by a question-and-answer period and a reception. Sharpe is a winner of the CFSEA's Newsmaker of the Year Award and a strong advocate of education in the hospitality industry.

SALARY DISCLOSURE SET FOR MARCH 31

Forty-three U of G employees were paid \$100,000 or more in 1998. Their names and salary information will be made available March 31, as required by the Public-Sector Salary Disclosure Act. The 43 names represent 1.7 per cent of regular full-time University employees. Thirty-six of those on the list, or 84 per cent, are faculty and academic administrators with faculty rank. A copy of the 1998 list can be picked up on or after March 31 at the reserve desk of the McLaughlin Library and at Communications and Public Affairs on Level 4 of the University Centre. The Ministry of Finance will post the province-wide listing for all public institutions on its Web site, accessed through gov.on.ca.

NOMINEES SOUGHT FOR ARTS TEACHING AWARD

The College of Arts is calling for nominations for its annual Teaching Excellence Award. Established in 1998, the award recognizes excellence in undergraduate or graduate classroom teaching, teaching innovation, curriculum or course development, student advising and any other activity associated with teaching. Full-time, part-time and sessional faculty and graduate students responsible for teaching significant portions of a course are eligible for nomination. Submit nominations by April 30 to the dean of the College of Arts, Room 128, MacKinnon Building.

CONSERVATION GROUP LAUNCHES WEB SITE

The Conservation Information Co-operative (CIC), a non-government, non-partisan conservation and stewardship information organization based at U of G, has launched a Web site at www.CIC.envsci.uoguelph.ca. CIC is a project of the Centre for Land and Water Stewardship under the direction of Prof. Stew Hiltz and is sponsored by the A.D. Latomell Endowment Fund, the Department of Land Resource Science and the Faculty of Environmental Sciences. The Web site includes news, events, career opportunities, links to environmentally related organizations and an online newsletter.

Crop Science Technician Commended in Fire Rescue

Smoke spotted during early morning paper route

ALBERTO AGUILERA, a technician in the Department of Plant Agriculture's crop science division, has been commended as a hero by Guelph firefighters after rescuing a couple from their smoke-filled home March 21.

Aguilera had been delivering newspapers for his vacationing sister since about 4:30 a.m. Sunday morning when he noticed smoke coming from a one-storey house on Westmount Road near St. Joseph's Hospital.

Finding the front door open, he encountered a confused Donna McLean, 66, who told him that her husband and father were still inside. He persuaded her to leave the house,

then accompanied her to a side door, where he found her husband, Don, 70, lying just inside on a smoke-filled set of stairs. Aguilera pulled the man out.

He says he doesn't feel like a hero, however. "I was shocked. It goes so quickly, you hardly have any time to react."

Responding to a call from a neighbour, firefighters then rescued Donna McLean's father, Elias Easterbrook, 88, from a back room of the house.

"It was very dangerous to go in there," says Aguilera. "Luckily, I decided not to. I warned the lady not to go inside because she was worried about her father. We just waited for

the firefighters."

All three occupants were taken to hospital. Donna McLean was treated and released, but her husband and father remained in Guelph General Hospital early this week.

Two firefighters were also treated and released after being caught in an explosion of flame in the basement of the home while other firefighters were rescuing Easterbrook.

Still delivering newspapers this week, Aguilera says he now feels "kind of weird when I pass there. I feel sorry for the people and wonder how they're going to cope with losing everything. I feel frightened thinking that it can happen to anybody."

Campus Days Draw a Crowd

Hundreds of volunteers welcome biggest turnout ever

THE CAMPUS DAYS program had its biggest turnout ever this year, with about 3,400 U of G applicants and their parents visiting campus March 17 to 19. About 1,400 attended each of the Wednesday and Thursday programs and another 600 turned out for Friday's campus tours. Visitors came from across Ontario and from the United States.

Co-ordinated by Laura Beattie and Marisa Phillips of Admission Services, with the help of other members of the admission team and the Office of Registrarial Services,

Campus Days involved hundreds of faculty, staff and student volunteers, including 150 student tour guides. Volunteers staffed more than 30 displays in the Athletics Centre, participated in information sessions and guided visitors around campus.

"The program wouldn't have been possible without the campus-wide participation of so many units and individuals," says Beattie.

Their efforts were rewarded by many words of praise from the visiting students and parents, she says. "We had a lot of positive comments,

including what a beautiful, clean campus we have and how warm and friendly the atmosphere is. A number of visitors mentioned our personal attention and people-oriented approach, and there were many comments about our informative presentations and sessions."

Applicants to Guelph will have another chance to get to know the University April 30 when Admission Services presents the Guelph Connection Conference, a day-long program of 63 sessions led by faculty and staff.

Job Shadow Program Offers Glimpse of Work World

Alumni and community sponsors show students the possibilities

WITH THE HELP of alumni and community employers, some U of G students are getting a first-hand glimpse of the professional work world. The job shadow program run by Career Services places B.Comm., B.A.Sc. and B.Sc.(Agr.) students with sponsor companies for a day. This allows future graduates to network, ask questions and discover what career direction their degrees may take them.

Many of the program sponsors are Guelph alumni, says student manager/supervisor Melissa Williams. "Our mission is to have alumni as sponsors because their jobs are so relevant to the students. If someone is coming out of U of G with a B.Comm. degree, it's relevant to them to know what someone with that exact same degree is doing in the work world."

A former participant in the program, Williams says that being a shadow for a day made her aware of career possibilities she'd never

dreamt of. Shadowing a financial institution's brand manager, she had a first-hand look at what someone with a U of G marketing degree could do professionally.

"It was something I didn't know existed. I had never seen this kind of job and never knew I would have the qualifications to do it. It really opened my eyes to the different careers I could have. Being on a job shadow gave me a feeling that I could really do some exciting things with my degree."

Many of the company sponsors involved in the job shadow program are in agribusiness, but a variety of other industries also participate. By doing so, they not only get a chance to help students, but they also have an opportunity to scout the skills of people who will soon be looking for employment, says Williams.

Kristen Hodgins, HAACP co-ordinator in the milling division of Cold Springs Farms, a sponsor of the job shadow program, agrees. "The program is one way for us to get to

know what graduating students and, in turn, our future prospective employees have to offer," she says. "The first year we participated in this program, we hired the job shadow student who spent the day with us."

Hodgins says her company also participates because the program "allows us to create awareness of our company in the University community and to show what Cold Springs Farm has to offer graduating students."

This year, the program has 60 sponsor companies, allowing the same number of students the opportunity to spend a day "on the job." Their schedule may include joining a meeting, touring the company, visiting a client or participating in a project. At day's end, both student and sponsor evaluate their experiences.

For the future, it's hoped the program will expand in both the number of participating companies and the eligible degree programs, Williams says.

BY GAYLE ANDERSON

PEOPLE

ENGINEER CONVENES TORONTO CONFERENCE

Prof. Bill James, Engineering, was convener of the International Conference on Storm Water and Urban Water Systems in Toronto in February. He and his graduate students also made several presentations. James was also a keynote speaker at the First South Pacific Conference on Comprehensive Storm Water and Aquatic Ecosystem Management in Auckland, New Zealand. He spoke on "Optimal Complexity Framework for Models of Benign Urban Water Systems—Asynchronous Learning/Design and User Performance Using a Web Group Decision Support Shell."

HOCKEY NIGHT IN GUELPH

U of G graduate Ryan Foster, who played hockey with the Gryphons from 1994 to 1998 and was a member of the 1997 national championship team, returns to Guelph next month as a member of Canada's national team. The team will play the Czech national team April 6 at 7:30 p.m. at Guelph Memorial Gardens. The public can also attend a team practice from 11:30 a.m. to 12:30 p.m.

KUDOS FROM COLLEGE ROYAL

At its annual luncheon March 13, the College Royal committee presented the President's Medallion and Larry Demary Bursary to College Royal president Mark Nibourg. The committee also recognized the contributions of faculty advisers Prof. Joe Prokopiak, Chemistry and Biochemistry, and Prof. John Burton, Animal and Poultry Science.

MEMORIAM

DOUGLAS HILL

Retired nutrition professor Douglas Hill died March 8 at the age of 85. Born in Guelph, he received his bachelor's and master's degrees from OAC and his PhD from the University of Minnesota before joining the faculty of Guelph. Author of more than 100 papers on nutrition, he retired in 1979. He was predeceased by his wife, Eilene, and is survived by a son, Doug, of Calgary, a daughter, Kathy, of Barrie and five grandchildren. A tree will be planted in his memory in the Wall-Custance Memorial Forest at the Arboretum Sept. 19 at 2:30 p.m.

PERCY SMITH

A memorial tribute to University professor emeritus Percy Smith, a retired drama professor and former academic vice-president who died Dec. 10 at the age of 84, will be held April 17 at 2 p.m. at the Arboretum Centre. Members of the University and Guelph communities are invited to come and share their thoughts and memories. Former U of G president Bill Winegard will emcee the event, which will include tributes from former associate vice-president (academic) Leonard Conolly and actor Douglas Campbell.

New College Faculty Builds Culture of Co-operation

Restructuring enhances strengths without diminishing autonomy of individual schools

THE NEW COLLEGE Faculty of Environmental Design and Rural Development (CFEDRD) is building a culture of co-operation that will enhance its national and international profile, says executive director Prof. John FitzGibbon.

It's been one year since the University School of Rural Planning and Development, the School of Landscape Architecture and the Department of Rural Extension Studies were restructured as CFEDRD. The restructuring was designed to improve administrative efficiencies; promote collaborative teaching, research and outreach opportunities; and strengthen the profile of faculty.

"One of the big challenges now is to gain some recognition and not lose the identity and value of the existing programs," says FitzGibbon. "Our next step will be to raise our profile internationally."

The task is all the more challenging given the size of CFEDRD — 21 faculty and the largest collective graduate program on campus with 215 students. The college faculty is unique at Guelph because it encompasses three professional programs concerned with planning, design, communication and community development.

The three divisions are now represented by directors who together form an executive council headed by FitzGibbon, who is also director of the School of Rural Planning and Development. Other council members are Prof. Maurice Nelischer, director of the School of Landscape Architecture, and Prof. Glen Filson, acting director of the School of Rural

Extension Studies.

Individually, the directors have responsibility for budget, teaching and research and staffing in their academic unit.

"The restructuring enhances the strengths within the college faculty without diminishing the autonomy of the individual schools," says Nelischer. "There is no big cultural gap in terms of values, teaching and professional advancement among the three units. We have a similar way of thinking."

Filson notes that the most immediate benefit is a more efficient sup-

port system for the three schools. "The restructuring will give us a higher profile and add synergy to put together co-operative research projects," he says.

CFEDRD's collaborative approach benefits students by reducing barriers to cross-disciplinary study and by providing more diverse opportunities, says FitzGibbon. Several courses in CFEDRD are now jointly taught by faculty from different disciplines, and more are being developed. Also under development are a degree program through distance education and an exchange

program with rural community programs at other Canadian universities, he says. The exchange program will build on the strengths that other universities offer students in rural studies.

Many research projects in CFEDRD are cross-disciplinary and include other departments and colleges on campus. Currently, CFEDRD faculty are conducting co-operative research with the Department of Plant Agriculture and the College of Social and Applied Human Sciences.

Future goals for CFEDRD in-

clude consolidating the faculty under one roof on campus — they are currently housed in Johnston Hall, the Landscape Architecture Building and the Textiles Building — and obtaining accreditation from the Canadian Society of Extension for the School of Rural Extension Studies. Another goal is to build stronger relationships with rural communities.

"It takes time to build effectiveness," says FitzGibbon. "We are doing it with a positive, co-operative outlook."

BY MARGARET BOYD
OFFICE OF RESEARCH

Rural Studies PhD Unique in North America

Program's theme of sustainable rural communities is explored in many different ways

THERE ARE A NUMBER of reasons why U of G's PhD program in rural studies has been a success — it's unique in North America, international in outlook and a model of interdisciplinary activity, says Prof. Bob Brown, Landscape Architecture, director of the program.

Brown, who took over last year from founding director Prof. Mark Waldron, Rural Extension Studies, is enthusiastic about the PhD program's interdisciplinary atmosphere, which creates a rich and diverse learning environment for faculty, staff and students, he says. There are six core departments and schools — Rural Planning and De-

velopment, Agricultural Economics and Business, Rural Extension Studies, Landscape Architecture, Sociology and Anthropology, and Geography — and 50 actively participating faculty who come from a wide range of areas on campus, including the departments of Population Medicine, Political Studies and Land Resource Science.

"It's an amazingly popular program," says Brown, who joined U of G in 1985 and has also served as graduate co-ordinator in the School of Landscape Architecture and chair of the OAC Committee on Teaching Excellence.

"Many of the students are already involved in interdisciplinary studies,

and they come to us from all over the world."

The student population of the program is certainly diverse. There are close to 30 students from a range of backgrounds and from as far away as Mexico, Ghana, China and Sri Lanka, who are pursuing the common theme of "sustainable rural communities."

Because many of the students have worked in developing countries, they have insights and knowledge that can be shared with other students and faculty, says Brown.

The program's theme of sustainable rural communities is explored in many different ways — from economic and social angles to the pres-

ervation of natural environments and cultural values. Students tend to work with expert knowledge systems as well as local knowledge systems, with the focus being "what the people in rural communities want," he says.

Brown, who sees himself as a facilitator rather than a director of the program, aims to maintain the program's relevance and practicality. He's interested in building on the program's mandate to work with First Nations peoples and wants to encourage more women to become involved.

BY MARGARET BOYD
OFFICE OF RESEARCH

A Home of His Own

Guelph organization pioneers home-share program for adults with autism

ANDREW BLOOMFIELD is a prisoner of autism. For more than half his 31 years, he has lived in a special residential school, a group home or an institution. According to his father, Gerry, a U of G geography professor, Andrew was "very unhappy" away from a family home environment, but the strain of near constant care wore heavily on his parents during the periods when he lived with them.

These days, Andrew is living in his own house near Riverside Park. From there, he walks his dogs and travels to work or to the U of G Athletics Centre to take part in a special fitness program. This happy development is thanks to a pioneering effort by the non-profit Guelph Services for the Autistic (GSA), a local organization whose board of directors includes Gerry Bloomfield and fellow geographer, Prof. Fred Dahms.

The GSA was founded in 1980, but external events forced the organization to change its tack in 1997.

"Successive provincial governments had adopted a policy of de-institutionalizing those in need and

in some cases, closing down entire institutions," says Dahms. "Responsibility for caregiving was being downloaded on municipalities, the local community or the relatives of the disabled — and without adequate resources to cope. This gave us the impetus for the individualized model."

Twenty-two of every 10,000 Canadians have autism. The causes remain unknown, and although research continues, there are as yet no effective medical treatments or methods of prevention. Those who suffer from the disorder usually have impaired social, communication and thinking functions, but can function well in familiar, caring surroundings and with meaningful work and recreational activities.

Faced with the fact that many people with autism do less well in a large-group environment, the GSA developed an innovative home-sharing model. One person with the disorder lives in a house with people of similar interests and age. In exchange for reduced rent, home sharers assist the autistic individual and do some chores while providing

companionship and support.

In 1997, the GSA bought a house near Riverside Park. Shortly afterwards, Andrew Bloomfield moved in. After carefully monitoring progress of this first venture, the GSA is now ready to explain how the model could be replicated in Guelph and beyond, and will do so at an information session and public launch March 29 at 5:30 p.m. in Room 234 of the Hutt Building.

Bloomfield, a past president of the Autism Society of Ontario, is delighted with the results both as a parent and a researcher. "This approach is much more humane, and it's a much healthier environment," he says. "The funding cuts and closures played a big part in getting us to where we are today, but as important was recent empirical research that suggests the more significant an autistic individual's needs are, the more individualized the supports have to be. The result is the 'person-centred' approach we developed."

He also believes the costs of home sharing are less than the costs of operating group homes.

Prof. Mary Konstantareas, Psy-

chology, an expert on autism, agrees that the personalized model is preferred.

"Contentment, fulfilment and a sense of personal growth for adults with pervasive developmental disorders, including autism, are enhanced through home sharing," she says. "I wish there were more such homes."

Optimally, the GSA would like to set up one home a year with an autistic individual as principal occupant. The key is finding homes that are flexible enough to meet the needs of those who will live there and finding the right sort of home sharer. The ideal candidate is reliable, compassionate and mature, and willing to encourage the autistic "focus" person to do things for his or herself, rather than doing it for them.

In the 21 months Andrew Bloomfield has been living at his house, life has never been better. "The neighbourhood has been wonderfully accepting," says Gerry Bloomfield, "and Andrew takes great pride in welcoming visitors to his home, because it is his home." Andrew also relies on a strong support cluster of volunteers and serv-

ices from within the community. Although he doesn't speak, he is very active. He presses metal parts in a small workshop and collates mail-out projects at U of G.

Dahms and Gerry Bloomfield believe the home-share model also presents some good research opportunities, particularly for students in psychology, sociology and family relations and applied nutrition. "This is a marvellous living laboratory for the study of autism, in a natural environment rather than artificial lab conditions," says Dahms.

It wasn't until 1942 that autism was first identified as a separate disorder. "Although a fair amount of understanding of autism has come about over the last 50 years or so," says Konstantareas, "it is only through studying the life history of sufferers in a longitudinal, prospective way that we can come to fully appreciate the most severe forms of the disability. For that, nothing can really compare with an ongoing relationship on a daily basis, such as is possible in a home-sharing situation."

BY ALEXANDER WOOLLEY

Building a Better Arctic Char

Studies aim to help fish farmers and hatchery managers improve breeding and raising of existing char stocks

THOSE RATHER ordinary-looking fish swimming around in the big blue vats in U of G's Hagen Aqualab may hold the key to developing what zoology professor Jim Ballantyne calls a "super fish" for Canada's arctic char aquaculture industry.

For two years, Ballantyne has headed a team of several Guelph researchers in studies intended to help fish farmers and hatchery managers improve breeding and raising of existing stocks, and to develop ideas and methods for selecting better strains of char.

Although arctic char accounts for less than two per cent of the aquacultured fish sold to restaurants and markets in Canada, Ballantyne says the market is poised for growth. Considered a gourmet species, arctic char can fetch a higher market price than Atlantic salmon, which now makes up about 95 per cent of the fish cultured in this country.

The fish also appeal to farmers because they thrive in relatively crowded conditions, allowing managers to gain efficiencies in their operations.

The problem, one that has confounded many a would-be aquaculturist close to markets in southern Canada, is that these finicky fish are notoriously resistant to changes in temperature and salinity.

Three major strains are native throughout Canada's Arctic, but they fail to thrive in warmer climes, particularly during early development stages. The scientists hope to find and develop eggs and young that are more tolerant of warmer water than that found in their accustomed northern habitat.

"We're trying to find strains or



Graduate student Jason Bystriansky is studying salinity tolerance of arctic char, which his supervisor, Prof. Jim Ballantyne, believes is poised for growth in the gourmet market. PHOTO BY DEAN PALMER/SCENARIO IMAGING

improve methods that get rid of this problem," says Ballantyne, who works with graduate student Arash Shahsavari. "Certain stages of the life cycle are particularly temperature-sensitive. Once we know the critical periods in temperature sensitivity, the hatchery manager might alter temperature accordingly."

Arctic char are anadromous, meaning they return to fresh water to spawn and overwinter. Develop-

ing strains tolerant of sea water year-round would allow fish farmers to practise the most efficient farming method, basically raising the fish in huge ocean pens as with Atlantic salmon. "If you can do that, you can save yourself a lot of money," says Ballantyne.

He and graduate student Jason Bystriansky expose fish to saltwater for varying periods to determine changes in blood chemistry, which

might provide clues about their aversion.

"At some point, we hope to do crosses between strains and develop a 'super char' able to survive in sea water and that would become the standard in mariculture for arctic char," says Ballantyne.

Key to their research is learning more about the genetics of the fish. Using stretches of DNA called micro-satellites that serve as markers

for genes controlling economically important traits, the researchers hope to develop breeding programs to produce fish that grow faster and reach a larger spawning size, and that are more tolerant of higher temperature and salinity. Also involved in this project are zoology professors Elizabeth Boulding, Patricia Wright and Paul Hebert, along with graduate student Jason Rhydderch. (In a separately funded project, zoology professors Moira Ferguson and Roy Danzmann are investigating genes that govern these and other characteristics in arctic char.)

Obtaining wild stocks from northern Canadian waters would also help broaden the genetic diversity of the existing commercial fish, all of which derive from a relative handful of fish bred two or three decades ago. Ballantyne will use a recent \$10,000 grant to collect char tissue samples in the Northwest Territories.

His project, the largest research initiative in the Hagen Aqualab, began two years ago when U of G received \$75,000 from the Kitchener-based aquaculture company Icy Waters International Inc. to establish a low-temperature, early-rearing facility. That funding proved instrumental in obtaining a subsequent four-year strategic grant from the Natural Sciences and Engineering Research Council.

Icy Waters, the largest arctic char hatchery in Canada, raises fish for market and supplies eggs to farmers worldwide from its hatchery in Whitehorse, Yukon. The company supplied the trademarked "Yukon Gold" specimens here at Guelph.

BY ANDREW VOWLES

Fish Skeletons Spawn Distinctive CD Cover Art

Image suits the name of Yukon-based group Inconnu

IT'S THE FIRST TIME U of G zoology professor David Noakes has had his name listed on the liner notes of a compact disc. Singer? Songwriter? Bass player? Try cover artist — or at least the supplier of cleared and stained fish skeletons whose ethereal but colourful images adorn the jacket of *Back to the Water*, recently released by Yukon-based Inconnu.

The group, whose U of G connections include singer-songwriter Nick de Graff and manager Dave Petkovich, both Guelph graduates, turned to the University when they were looking for a suitable image for the CD.

Explaining that many of the songs, including the title cut, were influenced by river excursions, Petkovich says: "I thought it would be nice to have something unique that most music buyers would never have seen before, and I thought about those beautiful fish that we had stained years ago."

"Those beautiful fish" will be instantly recognizable to generations

of U of G biology students who have spent time in an ichthyology lab learning to prepare skeletons for study using chemicals that selectively tint bone and cartilage. After hearing from his former students, Noakes used the technique to prepare three juvenile brook trout, whose blue-stained fins and eye sockets and red-coloured spines and jaws turn grim science into a striking art form.

The image also suits the name of the band — besides its French meaning for "unknown," Inconnu is a species of whitefish native to the western Arctic.

Petkovich and de Graff graduated from Guelph within a year of each other in the early 1980s, but first met about nine years ago while working as fisheries biologists in the Yukon. Although they both run environmental consulting companies by day, it's the music business that brings them together more often. Petkovich's wife, Andrea McColeman, is Inconnu's lead singer.

De Graff had played in garage

bands while growing up in Winnipeg and Blenheim, Ont., but hung up the guitar while attending U of G. After graduating, he worked in northern Manitoba, but elected with his wife, Nancy, to head even further north.

"We just decided to quit our jobs and move here," he says, describing Whitehorse as a haven for biologists and artists. "We found people as eccentric as ourselves and just fell in love with the place."

Back to the Water has just been released nationally. Petkovich, whose Caribou Records label also manages Juno-award winners Jerry Alfred and the Medicine Beat, says local response to the new album — and its cover — has been positive.

Inconnu is booked this summer to play several festivals in Western Canada and Nova Scotia, and hopes to add venues in Ontario and Manitoba. The group played at Guelph's Hillside Festival in 1996.

The six-year-old group, whose music Petkovich describes as a "progressive, acoustic sound," has sold

almost 4,000 copies of its first album.

"It's actually quite interesting music, combining folk, pop, fusion, English and French," says Noakes, who received an autographed copy

of the new CD containing his name and that of U of G in the credits.

To purchase a copy of *Back to the Water*, call 1-800-633-8282.

BY ANDREW VOWLES

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JUST HOW NIGH IS THE END?

"Eon after eon, how did the vertebrates escape being wiped out by something utterly lethal?"

By JOHN LESLIE

LAST YEAR, MY BOOK *The End of the World: The Science and Ethics of Human Extinction* appeared in paperback. Humans, it argued, could quite easily disappear during the next few centuries. This suggests itself when we consider the various dangers facing us, then look at the doomsday argument.

The doomsday argument, discovered by the Cambridge cosmologist Brandon Carter, uses the "anthropic principle" that Carter formulated in the 1970s. The anthropic principle reminds us that we may well live in a highly unusual place, time or universe. Even if almost all places, times or universes were hostile to life, we intelligent living beings would necessarily find that our place, time and universe were life-permitting. But while it can in this way encourage us to think our location exceptional, "anthropic" reasoning can also warn us against thinking it more exceptional than is necessary for us to find ourselves there.

Suppose, for instance, that a million technological civilizations, all roughly the same size, will have evolved during the lifetime of our universe. Don't hurry to believe that you live in the very earliest! If all individuals in these civilizations believed such a thing, only about one in a million would be right.

Well, now, what if the human race became extinct soon? You and I would then have been rather ordinarily located in human population history. Because of the population explosion, roughly one in 10 of all humans who have entered the world are still alive with you and me. But what if humans instead survived for many more centuries, perhaps managing to colonize their entire galaxy? You and I would then have been in an exceptionally tiny class. Perhaps fewer than one in a billion would have lived when we did. Now, we ought to have some reluctance to think ourselves so exceptional, when it is so easy to believe instead that humans will soon be extinct.

That, in a nutshell, is the doomsday argument. It uses the principle, central to Bayesian probability theory, that hypotheses are weightier when they would lead one to quite expect what is actually observed. If the human race suffered extinction shortly, you'd have been fairly ordinarily placed in the population history of your species. If extinction were much delayed, then you'd have been placed very extraordinarily. Draw your conclusions!

Although the risk of Doom Soon might at first seem small, the doomsday argument could make us view it as disturbingly large. The argument has one possible flaw. Perhaps the world is truly indeterministic instead of just unpredictable by us. If so, then there wouldn't yet be any suitably guaranteed "fact of the matter" of how long the human race will survive. Bayesian reasoning, encouraging us to see our temporal position as none too exceptional, would be hindered by this. The doomsday argument would operate smoothly only when used for attacking great confidence in the future of humankind — confidence that a lengthy future "is as good as determined."

Other supposed flaws are illusory. For instance, we mustn't reason that there could be nothing unusual in finding ourselves alive as early as today, since the people of a heavily populated future aren't alive yet and therefore cannot find themselves anywhere. To see the weakness of such reasoning, consider the following scenario. In one century, emeralds would be given to three humans. In some much later century, five thousand humans would likewise get emeralds. Told only these facts, you get one of the emeralds. Suppose you said to yourself that if you were the earlier century, then the emerald-getters of the later century "wouldn't be alive yet," so you couldn't be among them. Suppose you then concluded that you might just as well bet that you lived in the earlier century. If every emerald-getter betted like that, only three would win their bets.

The doomsday argument has made me much less optimistic. Inclined at first to say that the risk of Doom Soon was only about five per cent, I found myself changing this to 30 per cent. Where had the figure of five per cent come from? Although a



"guesstimate" only, it wasn't pulled out of thin air. Consider nuclear war, for a start. The collapse of the Soviet Union hasn't made the bombs vanish, and the danger of accidental war may actually be higher than ever. Biological warfare has become very threatening through advances in genetic engineering. Essentially, new diseases can be developed by gene splicing, then distributed in aerosol form. The pollution crisis continues to grow. Damage to the ozone layer has highlighted the vulnerability of oceanic phytoplankton, crucial to the health of our planet. And greenhouse warming, produced by human-made increases in carbon dioxide, methane and other gases, could perhaps be fatal. Failure to cut greenhouse-gas emissions could mean quite a large chance of a greenhouse runaway. Methane — molecule for molecule some 30 times as powerful a warmer as carbon dioxide — could be released in huge amounts from warming lands and continental shelves. More warming, more methane; more methane, more warming — and then other factors join in, temperatures shooting upwards calamitously.

The poisoning of air, land and water by the thousands of chemicals now synthesized industrially, the destruction of habitats such as rain forests and wetlands, and the concentration of modern agriculture on just a few species might culminate in environmental collapse. Even 10 years ago, humans took a quarter of the photosynthetic product of their planet.

Population and economic activity have since grown rapidly. The population doubling time is now as short as 40 years. In huge cities, diseases quickly develop dozens of new strains, which are then spread worldwide by travellers. On first reaching Australia, myxomatosis killed all but two in every thousand infected rabbits. Mightn't something like that hit us humans soon? How lucky are we that AIDS isn't spread by coughing, like the related *visna* virus that infects sheep?

Eon after eon, how did the vertebrates escape being wiped out by something utterly lethal? Well, if disease had exterminated all intelligent life on 99 per cent of all life-bearing planets, we intelligent living beings would necessarily find ourselves on a planet from the remaining one per cent.

More exotic dangers are also worth a mention. You may know that a supernova could destroy Earth's ozone layer or that we could suffer a large comet or asteroid impact, but have you heard of the quark matter and vacuum instability disasters that might result from experiments in high-energy physics? In the

first, a tiny piece of quark matter changes all that it touches into more of itself until the entire Earth is consumed. Admittedly, people think that any quark matter would instead repel ordinary matter, but nobody can yet be sure. And the currently popular argument that cosmic rays would already have seeded a quark matter disaster, if one were physically possible, perhaps forgets that the rays would be producing quark matter only in minuscule lumps and in the upper atmosphere. The lumps could all decay radioactively long before they touched enough ordinary matter to allow them to grow.

Again, although even head-on collisions between cosmic rays — some of them pack as much punch as rifle bullets — haven't reached the energies needed for a vacuum instability disaster, some think that physicists could attain such energies during the next few centuries.

Now, a vacuum instability disaster has justly been called "the ultimate ecological catastrophe." The idea here is that space as we know it, "our vacuum," may be filled with a field (technically speaking, a scalar field) that is like a ball trapped in a hollow, a ball unable to run downhill unless given a violent shove. Physicists might produce such a shove, creating a tiny bubble in which the field had "dropped to the valley." The bubble would expand at nearly the speed of light, destroy the whole galaxy and then keep going.

Incredulous? Consult *Physics Letters B*, Dec. 13, 1990, on vacuum instability. On quark matter, try *Physical Review D*, Dec. 1, 1984.

To turn to something less bizarre, there are the possible dangers of genetic engineering for peaceful purposes. Conceivably this could end in tragedy — for instance, in a "green scum disaster" in which some ingeniously modified organism choked out everything else. Or a rather similar "gray goo calamity" might one day be caused by nanotechnology. This means use of very tiny machines able to produce all sorts of things, including more of themselves, because they carry their own miniaturized computers.

Not miniaturized computers, however, but full-sized ones are what pose the main threat in the near future. They control nuclear weapons to a degree kept secret from us. They govern increasingly important supply systems, which might break down catastrophically. And people working on artificial intelligence often expect computers to excel humans shortly. Several of them suggest that it might then be good if all of us were replaced by computers, which could lead happier and longer lives, as well as being smarter. At least one expert has said he is working towards this. Might the computers soon be working towards it themselves?

Bad philosophy might be playing a role here, because it is far from clear that computers would ever be truly conscious and therefore with lives worth living. And bad philosophy is definitely present in ethical theories that tell us the extinction of all intelligent life would be no tragedy. Numerous philosophers now think of ethics as just a way of reducing conflicts between people, if there are any people. They teach that merely possible people of future generations, people who would never exist if, say, we lost the ozone layer, cannot possess anything as real as a right to be born. If anyone listened to philosophers, this doctrine would be yet another danger.

Imagine that, of intelligent species scattered through the universe, at least one in 10 survived nuclear bombs, industrial pollution, etc., then colonized their galaxies. Wouldn't the vast majority of intelligent beings find themselves in species that had indeed colonized their galaxies? But if so, why do we find ourselves in a species that hasn't?

Retired philosophy professor John Leslie, FRSC, is author of *The End of the World: The Science and Ethics of Human Extinction*, originally published by Routledge in 1996 and released in paperback last year.

ON TRACK FOR SYDNEY

For Jason Dunkerley, blind since birth, a pair of running shoes is the key to freedom

BY ANDREW VOWLES

U OF G TRACK AND FIELD RUNNER Jason Dunkerley had a slightly more distant goal in mind than his customary 800- or 1,500-metre heat when he donned his running shoes back in November 1996. Then in his last year of high school, he had decided to mark his school's 125th anniversary — and try to bring in some money — by running a sponsored marathon. Every day for five days, he covered a different 25-kilometre stretch, each finishing at W. Ross MacDonald School for the Blind in Brantford. One hundred and twenty-five kilometres later, he'd raised \$2,000 for the school and added another laurel to the running awards he'd collected on the track during the previous four years.

Today, Dunkerley is concentrating on shaving his middle-distance times as a member of U of G's varsity track and field team. Having recorded world-class finishes last summer at an international meet for blind runners in Madrid, he figures he's among the top contenders for next year's Paralympics in Sydney.

Perhaps more important, he hopes to improve his middle-of-the-pack standing among able-bodied athletes sufficiently to earn a spot in national or provincial competition alongside sighted runners.

"It's really important for me to run in university meets in a real race situation," says Dunkerley, who usually cases into the starting blocks as the only blind runner in the field.

The second-year international development student will probably get his wish, if Doug Whistance has his way. Says Whistance, who became Dunkerley's club coach just before his impressive showing last year: "That's one thing we will be focusing on — to compete in as many races for sighted runners as we can." In fact, he fully expects Dunkerley to shatter the world record for a blind runner this year in the 800-metre and next year in the 1,500-metre.

Going a step further, Whistance is now working with Dunkerley on an intensive hands-free training technique that could revolutionize racing for blind athletes.

During meets and in training, totally blind athletes rely on guide runners who, following closely behind, mirror their stride and arm movements while maintaining hand-to-elbow contact. "It's almost like a jockey on a horse where the rider has to make the tactical decisions," says Greg Dailey, a guide runner for Dunkerley. "I have to make the correct ones and let Jason run, but keep him out of trouble."

When he's not training with Dailey, Dunkerley works out with fellow varsity members and with six fellow runners in Whistance's club, part of the Toronto Olympic Club. That's where Dunkerley's been practising running the straightaways without physical contact with his guide runner. Although they haven't yet mastered the curves hands-free, Whistance hopes to take that step with Dunkerley.

Some blind runners, mostly in Europe, often use a knotted rope for a kind of hands-free tandem arrangement with their guide runners. But Whistance's technique, involving only minimal contact, would free Dunkerley to run like his sighted competitors. "The guide runner would still run with him, but



Jason Dunkerley, left, runs with guide runner Phil Wiebe, a fellow varsity team member.

without so much physical assistance, just brushing of the arm or speaking," says Whistance. "It allows both runners free movement, and then they can run more efficiently. It gives Jason more confidence when he knows he's not being held by the other runner."

It was during Grade 9 in Brantford that the Hamilton native discovered the freedom of running. He had flirted with wrestling, but grappling on the mat failed to provide the release offered by the feel of the open road.

"Wrestling didn't have the appeal for me that running does, and I enjoy the feeling of getting somewhere quicker than walking," says Dunkerley. Running also satisfied another impulse in him. "It was something I could do well compared with some other kids. There's some competitiveness in me, and running was a way to express that."

He brought that spirit to Guelph in 1997, shortly after David Scott-Thomas had arrived as varsity coach of the track and field team. Dunkerley is the first blind athlete Scott-Thomas has encountered — indeed, he's currently the only blind runner competing against able-bodied athletes in Canadian varsity competition. "We treat him just like any athlete," says Scott-Thomas. "There are obviously special circumstances, but in travelling and racing, he's like anybody else."

Dunkerley says his teammates respect him as a runner "as opposed to someone blind who's running," but he still turns heads at some meets. "People I see for the first time, I think they're flabbergasted. They say: 'That's amazing.' I get that because I'm seen as unique. I know where they're coming from and try to take it in stride."

As a member of the Canadian Blind Sports Association, he captured first place in the 1,500-metre and fourth in the 800-metre events during last summer's world track and field championships in Madrid. (Blind athletes are classed in three categories,

depending on the extent of their impairment. Dunkerley was the only Canadian runner in Spain in the fully blind category.)

In Madrid, he posted his best times for both events — 4:17 for the 1,500-metre, 2:08 for the 800-metre. "I'm optimistic about beating that," he says, referring to next year's Paralympics.

Scott-Thomas says Dunkerley is "world class for a category 1 blind athlete. As an able-bodied athlete, he would be OK. He's got exceptional drive, and I think most athletes at his level have to have that drive to succeed. It's nice to work with competency, and he's got that."

He adds that Dunkerley helps foster team spirit by playing guitar during road trips and writing articles for the alumni newsletter.

Nick Rollings, who served as Dunkerley's guide runner throughout high school, calls his former protégé "the best blind runner I've ever run with. There's no reason he can't go under 4:10 for the 1,500-metre. He has that natural speed and quickness. The only thing that will perhaps hold him back is that, if he's running at 4:10, the guide runner has to be under that as well."

Running in sync with a guide runner sometimes poses less of a problem than synchronizing schedules. Himself a would-be member of the national team, Dailey has his

own demanding training regimen to keep. In fact, the partners become competitors in some qualifying meets, and in a recent race, Dunkerley had to sit out when he was unable to run with any of his alternative guide runners.

"Jason has a long way to go yet and I think he's going to amaze a lot of people," says Whistance. "He came from an academic setting that was very protective. He says his only regret about his high school education is that he didn't spend his OAC year in an integrated school. Now with the group he's working with, and in a university setting, he's just beginning to branch out and discover things about himself and his goals and his dreams and his potential."

Coming from W. Ross MacDonald, where the roughly 250 students were on a first-name basis with each other and where the entire high school complement numbered only about 100, it took him a while to adjust to Guelph. "It was a bit of an eye-opener," says Dunkerley, who is doing a minor in Spanish and plans to become a journalist or a teacher.

The single biggest challenge? Doing research, he says. Unlike high school, where all materials were written in Braille, he relies heavily on peer helpers through the Centre for Students with Disabilities and his roommates in East Residences for assistance during and outside classes.

"People wonder how it would be possible to survive in university" with such an impairment, says Dunkerley, who, like his two brothers, was born blind with retinitis pigmentosa. "But everyone deals with problems."

His outlet, of course, is a pair of running shoes and the feel of the straightaway beneath his feet. "Going for a long run is personal and spiritual in a way," he says, describing his awareness of wind, sun, air temperature, the surface of the road or track. "You get to lose everything for a while, just open your senses."

PHOTO BY DEAN PALMER/SCENARIO IMAGING

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Charitable Giving Starts with People

Annual giving results are an important marker for larger fund-raising initiatives

U OF G's annual fund-raising efforts were rewarded with cash and gifts-in-kind totalling \$8.4 million in 1998.

We know that each of these dollars makes a difference to the University's bottom line, but dollar signs show us little of what an annual giving program is all about. Embedded in the cash and gifts-in-kind that make up the \$8.4 million are the stories of thousands of people who think the University of Guelph is worthy of their financial support and thousands of younger people who are benefiting from that conviction.

John Mabley, vice-president (development and public affairs), suggests that if we could look at the personal reasons behind the gifts U of G received last year, we would find

many inspiring stories. One of the rewards of working in the development area, he says, is the privilege of meeting donors who are motivated by their strong belief in education, alumni who carry an overwhelming sense of gratitude for the experiences they had at Guelph, and many individuals of modest means who stretch in their giving to support the University and its colleges.

"Their support demonstrates pride in the - University community," says Mabley. "People who continue to support U of G year after year are among the best indicators that our faculty, our educational goals, our research initiatives and our contri-

butions to society are indeed valued."

In the mind of Rudy Putns, executive director of campaign programs, that value is well placed.

"Universities are among the few

"The Annual Fund is a year-round effort that encourages the University community to support any area of the campus that they value."

Rudy Putns, executive director of campaign programs

places in society where so much talent is brought together as a focus for teaching, learning and expanding the frontiers of knowledge," he says.

"Education is a remarkable opportunity, and one that should be

available to future generations. We can all be proud of our role in helping to raise financial support that continues the quality of education that people receive at the University of Guelph."

Annual giving results are an important marker for larger fund-raising initiatives, says Putns. Development and Public Affairs is currently supporting the initiative to identify funding needs within the University that could be met

through a major fund-raising campaign.

The unit is also building academic relationships and assembling the staff and database resources required to mount a campaign. Later

this spring, @Guelph will be reporting further on preparations for the University's upcoming campaign, which is already predicted to be the boldest in University of Guelph history.

"When we begin to recruit volunteers for campaign leadership later this year," says Putns, "we'll look to the participation of alumni and the campus community in the annual giving program to show campaign volunteers that they will be well supported and appreciated in their fund-raising efforts."

The accompanying photographs explain better than words, says Mabley, that Annual Fund gifts address special projects and provide enhancements that could not be funded through other means.



Prof. David Knight, Geography, gave his support to the 1998 annual giving campaign on campus and spoke from his experience as dean of the former College of Social Science about the need for funds to boost research grants for new faculty. He said it's becoming increasingly difficult for U of G departments to attract talented faculty because of reduced operating budgets that cannot provide the equipment, research materials and resources needed to establish a research program. The Annual Fund helps through designated gifts that support new-faculty grants.



U of G has been successful in raising \$230,000 in private support to leverage an additional \$460,000 from the provincial government's 10-year allocation for Ontario Graduate Scholarships in Science and Technology. Beginning this year, the scholarships will be available to graduate students across a broad range of academic programs at U of G, including Brendan McKeown and Phillip Zuzarte, left and centre, who are working with Prof. Alan Wildeman, Molecular Biology and Genetics, to develop a model that will help scientists understand how cancer cell growth differs from that of normal animal cells.

Top: Donald Rutherford, a 1951 BSA graduate, made a leadership gift to the conservatory greenhouse project last year that boosted the donations of many other alumni and U of G friends in the nursery and landscape materials supply industries. At the end of 1998, total giving to the project reached almost \$740,000. The garden complex will be officially opened during Alumni Weekend in June.

Bottom: During her master's program in family therapy, Anna Toth received financial assistance from an ACCESS scholarship endowment created by alumni donations and matching funds from the Ontario Student Opportunity Trust Fund. ACCESS pledge payments are contributing to the strongest increase in student assistance endowments in the history of the University — more than \$15 million in three years.

BOTTOM LINE IN FUND-RAISING

Student Callers Boost U of G Fund-Raising Effort

Telemarketing program expands from two semesters to year-round operation

STUDENTS WHO FEEL a strong sense of connection to U of G are the most successful callers in the University's telemarketing program. Program supervisor Patrick Abdul says student pride and dedication come through loud and clear on the telephone and generate a kind of electricity that shows in the performance of the students who make fund-raising calls for U of G.

He speaks from experience, having honed his own communication skills as a student caller at the University of Waterloo. Graduating as a mature student in 1998, he managed the Waterloo phone program before joining Development and Public Affairs (D&PA) in February.

As he prepares to gear up U of G's phone program, Abdul sees a lot of

potential for increased revenue generation. "And we are working hard to make sure that Guelph students benefit from the potential that is here."

The student connection is probably the single most important element in the program's success, he says. "Our program at Guelph is implemented by students for the benefit of students."

In recent years, for example, student callers have boosted the ACCESS Fund, the Parents' Library Fund and annual giving programs that have supported multimedia laboratories and scholarships. The phone program offers a quick and efficient way to tell alumni about special opportunities,

like provincial matching-grants programs that enable them to double the value of their gifts. And, says Abdul, it gives donors the chance to find out first hand about the rising tuition costs and debt load that many current students are facing.

"Giving more students more opportunity to talk with alumni and friends is key to the growth of the phone program."

Patrick Abdul, phone program supervisor

Giving more students more opportunity to talk with alumni and friends is key to the growth of the phone program. Facilities in Alumni House now provide 18 calling stations, with overflow capacity of up to 23. Abdul says the program will

need a workforce of 40 to 45 students to fill an expanded schedule that will have callers working five evenings a week, with at least 18 students on duty each evening and a smaller shift working during the day. The most significant change, how-

ever, is expansion of the phone program from two semesters to year-round operation.

About 85 per cent of the people called are alumni, but other important target

groups include the parents of in-course students and friends of the University.

Whomever they call, students are seeking, first of all, to nurture a positive relationship with the University. "That is their number one priority,

says Abdul. "We want people to know that we're not calling just to ask for money. We're interested in their lives and what they're doing professionally, and we want them to reconnect with the University. If there is friendship and understanding, gifts will follow."

Callers also collect information for the D&PA database and check home and work addresses. Quite often, their conversations end with career advice passed on from the alumnus they've called.

In addition, Guelph's student callers are improving their own communication skills through a valuable work experience, says Abdul, and they're learning how important alumni support is to the University.



Although she has access to the U of G Library from her own campus, this University of Waterloo graduate student makes the drive to Guelph to use what she says are "excellent reference materials and accessible microfiche resources." Money raised through the Parents' Library Program and other Annual Fund gifts help maintain that quality. Annual support in both cash and gifts-in-kind added \$466,000 to the library's budget in 1998.

Did You Know?

- Last summer, the Canadian Centre for Philanthropy reported the results of a national survey of giving and volunteering that outlined the key reasons why people give to charitable organizations. More than 90 per cent of donors said they give because they want to help a cause they believe in, and 65 per cent said they chose a particular organization because they had been personally touched by the cause it supports, such as illness or education.
- In the March 1999 issue of *Marketing Magazine*, U of G is cited as one of several Ontario universities that are doing a good job of marketing their institutions to individual donors through alumni services and affinity programs and to corporate donors through academic programs like work study and co-op placements. The latter allow industry partners to see "first hand where their money is directed and who it helps the most — students."



These U of G students are becoming telemarketing experts with the help of Guelph's phone program supervisor Patrick Abdul. First-hand conversation with students is one of the best ways for potential donors to find out about the campus needs that are most critical for students.

PHOTOS BY DEAN PALMER/SCENARIO IMAGING AND MARTIN SCHWALBE

Building Bridges

Guelph and U.S. students learn about Canada together

A NEW "international bridge" that opened last semester allows U of G students and their counterparts at a U.S. university to learn more about Canada together. Prof. Brian Woodrow, Political Science, introduced video-conferencing technology to widen enrolment in his second-year course "Representing Canada" to incorporate students at Mansfield University in rural Pennsylvania. This semester, he plans to open the border again during a one-week module on Quebec and Canada.

Through the video hookup, about 12 Guelph students learned and shared ideas and information about Canada with their classmates in Mansfield, just south of the Pennsylvania-New York border.

Twice a week, Woodrow met with students in a Day Hall conference room, where the main teaching aids are not chalkboard and slide projector but a video camera for filming his students and a television monitor for displaying their long-distance classmates.

At Guelph, the course introduces the interdisciplinary Canadian studies program directed by Woodrow. Of the roughly 50 students taking the course at the 3,000-strong Mansfield University, 20 to 30 per cent will continue in Canadian studies, says Robert Timko, a professor of philosophy and liberal studies at Mansfield.

Woodrow and his American counterpart agree that the technology gives students new perspectives on Canadian issues, from Quebec sovereignty to the arts scene.

"We thought we'd like to build bridges, a Canadian-American bridge, in the context of teaching a class," says Woodrow, who first discussed the video-conferencing idea with Timko about two years ago. Those bilateral talks came to involve administrators of both universities during Timko's visiting professorship here at Guelph in fall 1997.

A Pennsylvania native who completed his graduate degrees at Guelph, Timko directs both the Canadian Studies Resource Centre at Mansfield and the Pennsylvania Canadian Studies Consortium, which groups about 10 universities and

nearly 40 faculty around the state in studies of their northern neighbour.

The "Representing Canada" course was a natural for the inaugural run of the video-conferencing experiment. It had been developed for a 1993 summer program taught at Guelph for U of G students and their visiting counterparts from universities in Pennsylvania's State System of Higher Education.

After testing the idea last spring, the partners introduced the video-conferencing component this fall. That component occupied just over half of each 90-minute class. Afterward, students at both institutions continued to talk about insights and impressions gained from the discussion. They also followed a common course of readings prepared jointly by Woodrow and Timko.

Many of the students' preconceptions dissolved as they learned more about the other country's culture, says student Theresa Phair. During initial discussions of Quebec secession, for example, "the Mansfield students expressed an over-

whelming belief that a province should be permitted to unilaterally decide to remove themselves from Confederation with little debate," says Phair. "Through speaking with Canadians, they came to realize that this is a multifaceted and highly controversial issue with far-reaching economic, political and territorial consequences."

The video conferencing made the U.S. students realize the issue is more complex than they had assumed, says Woodrow.

He and Timko had to adjust to using the technology. For Woodrow, who prefers to move around a classroom while lecturing, remaining glued to the video camera is constricting. Video conferencing also entails a different kind of lecture planning. "It forces you to script your presentation more," he says.

Timko gets around the movement stricture by using a camera operator, but says he still has to prepare his lectures with the video link in mind. "It makes the teacher rethink how to teach."

They also had to help students get used to the virtual classroom, including overcoming "technology freeze" or the tendency to clam up on camera. "In order to stimulate reluctant students, we took controversial positions and asked questions," says Timko. Adds Woodrow: "By the end of the four sessions, I think people were comfortable with the technology. There was more widespread participation."

Woodrow says that conversing via video can make it more difficult to pick up such cues as body language. Thus, students tended to dance around potentially sensitive topics such as cross-border stereotypes. "They figured out how far they could push without negative feelings on the other side," he says. Still, he figures that seeing and hearing virtual classmates on a monitor offers more intimacy than relying on e-mail or Web-based discussion groups alone.

No other video-conferencing course in his department links Guelph with students abroad in this

fashion, although fellow faculty members also use dedicated lines to deliver courses jointly with McMaster and Waterloo. Woodrow says the technology might lend itself to use in other courses, such as a 300-level course on the role of the media offered in Canadian studies.

The hookup is relatively inexpensive, he says. He rents the conference room for \$50 per session, and Mansfield obtained a Canadian federal grant to pay for the telephone hookup.

"For a small group, it works really well," says Woodrow. "For 30 to 40 students, you would need more sophisticated equipment for closeups and an operator."

The course has caught the eye of the Canadian government, says Timko, who recently received funding from the Canadian Embassy to explore ways to extend video conferencing and other Web-based learning technologies to other universities in his state's Canadian Studies Consortium.

BY ANDREW VOWLES

CFI-Funded Analyser Will Make Guelph Canadian Leader in Tracking Mercury

Engineer hopes studies will help other scientists, government regulators

PROF. GRANT EDWARDS, Engineering, says equipment for measuring total gaseous mercury that he will purchase with new federal funding will make Guelph a Canadian leader in tracking the natural cycle of this volatile metal that affects the environment and human health.

By learning more about how mercury circulates through the environment, Edwards hopes to help other scientists and government regulators studying overall levels of this element and what factors affect its release to the atmosphere.

Edwards was one of 11 Guelph scientists to receive a total of nearly \$500,000 in funding this fall under the New Opportunities portion of the Canada Foundation for Innova-

tion (CFI) program. He applied for \$42,000 to buy a mercury vapour analyser used for measuring air-surface exchange of atmospheric mercury. "Mercury air-surface exchange is a difficult, challenging problem," he says.

As with other trace elements, mercury — a gas at room temperature — cycles naturally through the environment, but no one has clearly mapped out just how the process occurs. Working with postdoctoral student Goretti Dias and PhD student Jeff Kemp, Edwards will study the mercury cycle at several sites throughout Canada. The sites will include remote Ontario locations where he has worked since 1996 with the Geological Survey of Canada and Environment Canada's Atmospheric

Environment Service.

As a micrometeorologist, he is interested in learning how mercury moves between the Earth's rocks and the atmosphere. "We have no good handle on natural emissions," says Edwards, who suspects that such emissions will prove to be higher than previously thought.

His results could help other researchers put into perspective the amounts and effects of mercury generated by human activity. That is particularly important for regulators charged with meeting requirements established in the North American Free Trade Agreement to reduce human emissions of the substance.

Mercury has garnered recent headlines in Canada because of fears over its concentration in fish. The

element is discharged by coal-fired generating stations and smelting operations, and shows up in landfill sites in everything from dental amalgams and batteries to latex paints and fluorescent light tubes.

Edwards's micrometeorological techniques and equipment, including the device he plans to buy with the CFI funding, resemble those used in analysing the cycling of other elements or substances such as carbon and nitrogen and components of acid rain. No other Canadian research institution will have a similar capability for studying mercury, says Edwards, who also plans to investigate the air-surface exchange of five other trace metals — cadmium, lead, zinc, copper and nickel.

BY ANDREW VOWLES



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Travel Writing a Going Concern

Narratives reproduce the foreign world as an object of western knowledge

SEVERAL YEARS AGO when Prof. Patrick Holland, Literatures and Performance Studies in English, was invited to China's Hunan Normal University, he did something that Canadians often do before travelling to an unfamiliar country — he bought a travel book on China.

"It was such a depressing book, full of bankrupt cultural gestures," he says. "It almost made me regret that I had accepted the position as visiting professor." But Holland did go to China and says it was a wonderful experience.

When he returned to Canada, his curiosity led him to buy a second travel book describing the country where he had spent the last few months. It was much better writing, but reinforced some of the same stereotypes.

One travel book led to another, and another, and eventually to discussions with colleague Graham Huggan at Munich University about the need for a book that would critique the genre of travel literature. Called *Tourists with Typewriters*, the book was published in Canada and

and entertainment.

Travel writers often use the same verbiage in an attempt to convince readers that their books and articles delve into places that normal tourists don't go.

Holland, however, is quick to remind his readers that travel is a commodity, and so is travel literature, and both use the tourist/traveller rhetoric to lure the adventure-minded traveller or reader on to an alternative beaten track.

Halfway through the 20th century, some critics were saying that travel writing was a dying art form. People had money to travel, so why read about what they could do on their own? The reality, however, has made the travel section one of the largest in most major bookstores. Travel books don't substitute for travel, says Holland. In fact, one promotes the other.

Nor is a travel book written to be a guidebook, he says, although many are used that way, especially by travellers who perceive a difference between themselves and other tourists.

Travel narratives have been successful over time in reproducing the

ists; others write other forms of fiction.

"I do support that even the best travel writers are a little embarrassed and defensive about what they do," says Holland. "Some will say, 'Yes, I write travel books, but I'm not really a travel writer,' as if admitting to being a travel writer is some kind of denigration of their skills as a writer, as if anyone could write a travel book."

Good travel writers are not just tourists with typewriters, but are brilliant stylists, he says. Many are skilled craftspeople with the ability to jolt their readers out of complacent beliefs and attitudes and challenge prevailing stereotypes and cultural myths.

But travel literature can just as easily perpetuate cultural myths, as in the first two books Holland read.

"Travel writing charts the tension between the authors' desire to report the world as they see it and their often repressed desire to make the world conform to their preconceptions of it," he says. "Many travel writers seek the truths they imagine they already have in their possession. Like investigative journalism — a cousin — travel writing enjoys an intermediary status between subjective inequity and objective documentation."

In addition, the genre has a long history of entertaining fraud, says Holland. Travel writers are under no obligation to tell their readers the truth. "Not that all travel writers are liars, but all travel literature is some sort of blend of fact and fiction — facts often interspersed with stories of people, places and events as the writer encounters them."

The ambiguity surrounding travel literature is part of its charm. The stories make the literature entertaining as well as informative.

Some of the travel books Holland has enjoyed include Bruce Chatwin's *In Patagonia*, Pico Iyer's *Video Night in Kathmandu* and Mary Morris's *Wall to Wall: From Beijing to Berlin by Rail*. In Canada in particular, there is a strong tradition of travel writing, particularly at the intersection of fiction and travel writing, says Holland. He suggests Ronald Wright's *Time Among the Maya* and notes the worldwide success of Karen Connolly's books, such as *Touch the Dragon* and *This Bright Prison*. Holland points also to his U of G colleague Prof. Janice Kulyk Keeler as a writer whose work sometimes crosses the boundary between fiction and travel. "Some of the best travel writing occurs in novels and short stories," he says.

Holland's critique of travel literature leaves his readers with the assurance that the genre will continue to grow, like travel itself, despite the occasional lament that all the places you'd want to visit have already been discovered. Both travel and travel literature are already capitalizing on the millennial celebration of global cultural diversity as evidence that the world is still heterogeneous and thrilling.

BY MARY DICKIESON

SENATE REPORT

Continued from page 2

competitors could lead to damaging interpretations of the perceived quality of a program and its graduates. So the argument about accessibility can be inverted to ask: accessibility to what? Will students want to attend a less expensive program if it lacks the resources that competitors' programs have to ensure quality?

Several senators noted that maintaining the accreditation of U of G's engineering and veterinary science programs is an ongoing concern. (The engineering, DVM and BLA programs are currently the only undergraduate programs with differentiated fees at Guelph.) Prof. Pat Gentry, Biomedical Sciences, reminded senators how devastating it was for OVC, its faculty and its students when the college was put on limited accreditation in the 1980s. The college lost a lot of good faculty and students as a result, she said. Gentry acknowledged that higher tuition fees would be hard on many students, but in the long term, OVC students will be hurt if the college does not have internationally recognized standards, she said.

Several students asked if SCUP's proposed study of fee differentiation would include student representation and input. Prescott noted that the structure for the study has yet to be determined, but would probably be decided by SCUP and EMC. Student senators encouraged the administration to incorporate data collected by the Canadian Federation of Students in its assessment of differentiation and deregulation. Other senators suggested that post-graduation salary data be included in the analysis.

KUDOS FOR SBAG

The Senate Executive congratulated the Student Budget Advisory Group for its contribution to the consultative process surrounding the preliminary budget. The stu-

dent members of the ad hoc committee submitted recommendations from a student perspective to the President's Budget Advisory Group (PBAG). The report was presented to SCUP by student members. Recognizing the value of SBAG and its work, Senate Executive recommended that the group continue next year. Rozanski indicated that it is his intention that SBAG continue as an advisory group to PBAG and that its reports will be shared with SCUP.

SEMESTER NAME CHANGES

Senators approved a motion from the Board of Undergraduate Studies that the spring semester be renamed the summer semester, effective in the 2000/2001 calendar. The change was prompted, in part, by a recent Office of Registrarial Services survey that found some students do not correctly identify the spring semester with course offerings from May to August. It was suggested that renaming the semester to link it more closely to summer course offerings might facilitate this identification.

The change will also put U of G in line with most other Ontario universities, which identify course offerings in the summer months as either the summer term or summer session.

STATEMENT ON COPYRIGHT PRINCIPLES ENDORSED

Senate endorsed a statement of principles for the management of copyright in the digital environment. Presented by the Senate Library Committee, the principles were developed by the Canadian Association of Research Libraries to further the debate on copyright law reform in Canada.

To view the principles, visit the Web site www.uottawa.ca/library/carl/projects/Copyright/cr_copyright_principle_eng.htm.

OAC Graduates Continue to Support Art Collection

Continued from page 1

canvas by artist Tom Thomson, a contemporary of the Group of Seven, was acquired for about \$500 from the artist's estate. This led to the acquisition of another significant painting, *The Old Willow* by Marc-Aurèle de Foy Suzor-Côté, and to the formation, in 1930, of a college fund for building a collection of Canadian art.

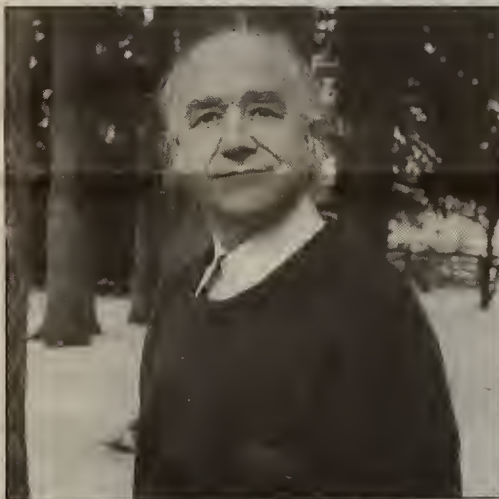
Around this time, Stevenson encouraged graduating classes to begin a tradition of presenting art to the college as class gifts, a tradition that continues to this day.

Strong support for the collection continued throughout the 1930s, '40s and '50s. Soon after the University of Guelph was established in 1964, a campus art gallery was established. In 1978, the Macdonald Stewart Art Centre, sponsored by

the University, the City of Guelph, the County of Wellington and the Upper Grand District School Board, opened.

The Donald Forster Sculpture Park was created in 1983 and now contains 18 sculptures, including *Mask* by Evan Penny, a gift from the OAC class of 1930 on its 50th anniversary.

OAC graduates have continued to support the collection with the acquisition of works such as *The Harvester*, a sculpture by Florence Wyle, purchased in 1987 by the OAC class of 1947, and *Early Morning Sunbreak*, a watercolour by Ferguson artist Barry McCarthy donated by the OAC class of 1951 in 1991. Many individual OAC alumni have also made contributions to the collection.



Prof. Patrick Holland

PHOTO BY DEAN PALMER/SCENARIO IMAGING

the United States last November. Before publication, the authors made a joint presentation at a conference on travel writing in Ireland, and they have since been invited to speak at a similar conference in Philadelphia.

It's easy to identify some good travel books — and the authors do that in *Tourists with Typewriters* — but impossible to develop a formula for writing one, says Holland. In December, *New York Times* reviewer Bill Bryson wrote that "what Holland and Huggan offer is an ambitious trawl through the immense and busy world of the modern travel narrative."

The book offers a lengthy discussion on the distinction between being a tourist and a traveller. It's blurry at best, says Holland, but the travel industry has promoted a sort of cultural superiority in the idea that being a traveller is somehow more altruistic than being a tourist, who is supposedly motivated by the desire for immediate gratification

foreign world as an object of western knowledge. Because travel narratives are round trips — bringing the reader home again — we tend to see in travel writing in the later 20th century a sameness in vocabulary reflecting the security of a shared culture between writer and reader. You find, as Holland did, similar descriptions and the repetition of clichés, whether intended or not. Critical readers will seek out travel literature that offers new cultural knowledge, while recognizing the ways in which travel writing can confirm cultural prejudices.

Travel writing is as much a classical genre as the romance or historical fiction, says Holland, who primarily teaches post-colonial literature. The literature of travel holds a secure place in the cultural marketplace, he says. Travel is, after all, the world's fastest-growing cultural industry. Yet few writers make a complete living from the enterprise of travel writing. Many are part-time journal-

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Paddling for Dollars

Cross-Canada canoe trip raises money for Canadian Mental Health Association

THIS SUMMER will see U of G psychology student Alison Pick paddling a canoe more than 4,000 kilometres along a historical fur-trade route from Ontario to northern Alberta in a fund-raising venture for the Canadian Mental Health Association (CMHA).

During the trek — the second leg of a cross-Canada canoeing journey that began in Montreal last summer — Pick and former high school classmate Erin McKnight will traverse some 4,300 kilometres of rivers and lakes from Thunder Bay across the Prairies to Fort McMurray in Alberta.

They hope their roughly four-month-long journey, beginning just after Mental Health Awareness Week in early May, will heighten public awareness of mental health issues and raise dollars for mental health services, education and research.

Last summer's phase of "Canada by Canoe" has so far generated between \$2,000 and \$3,000 in sponsorships, says Marion Wright, executive director of CMHA's Halton branch based in Milton, Ont. "A percentage of the proceeds go to our branch and through other CMHA branches across the country when they're involved in promotional activities for the paddlers," she says, noting that donations are still arriving from last year's segment.

The odyssey began in 1998 when McKnight teamed up with another friend to paddle a traditional fur-trading route beginning in Montreal and ending up some 9,600 km later where the Mackenzie River empties into the Beaufort Sea.

"My mother died when I was nine," says McKnight, who works at

Mountain Equipment Co-op, a Toronto outdoor equipment supplier. "She was bipolar or manic-depressive. I thought the trip would be a nice way to tie that in."

The pair had planned to make the trip over only two summers, but ran into problems last year. After her partner had to cut short her sojourn for personal reasons, McKnight soldiered on alone, but broke a foot while traversing Lake Superior and had to beach her canoe before reaching the Ontario-Manitoba border.

Looking for a new partner to resume the journey, she turned to Pick, an avid canoeist since her summer camp days.

"I've done a fair bit of paddling," says Pick, although nothing approaching the length or duration of this summer's journey. Among her previous trips, she organized a two-month trek for eight canoeists in the Northwest Territories two years ago and took part in a nearly month-long outing in northern Quebec.

Using McKnight's canoe, a 17-footer dubbed "Marigold," they'll complete the route in two stages. The first segment will take them from Thunder Bay to The Pas, including a 14-km portage early in the trip. During that stretch, they'll be joined by Pick's sister, Emily, a second-year biology student at U of G, and a fourth woman, Jessica Head of Montreal.

Rather than battle upstream along the final 2,000-km leg, Pick and McKnight plan to hop a train to Fort McMurray, then travel southward with the current back to The Pas.

Covering about 40 km a day, the canoeists expect the trip to take four months, from mid-May to mid-

September. Pick anticipates they'll go for weeks with only wildlife and blackflies for company.

She says her family in Kitchener was relieved to learn that, along with a full first-aid kit, she'll be packing a global positioning system for navigation and a cellular phone, just in case.

Several stores are donating food and equipment or underwriting part of the cost of the journey, including Guelph's Flour Barrel, Tara Natural Foods, Mountain Equipment Co-op, Far West Clothing and Western Canoe and Kayak. "We're still looking for food and equipment and enough money to cover our costs," says Pick.

Graduating this spring, she entered U of G five years ago intending to study international development but switched to an honours psychology co-op program. She's a team leader at Rathby House on campus and a member of the executive board for the peer counselling service.

According to CMHA's Wright, four out of five Canadians will experience mental illness themselves or through a family member. She says most mental illnesses can be treated, including depression, anxiety disorders, schizophrenia, bipolar disorder, seasonal affective disorder and eating disorders.

The CMHA-Halton branch has set up a Canada Trust paddlers' account for tax-deductible donations to "Canada by Canoe." For more information, call the Halton branch at 905-693-4270 or the Guelph branch of CMHA at 836-6220 or send e-mail to Pick at apick@uoguelph.ca.

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Going Global

OVC students launch program to study veterinary medicine overseas

ENID STILES and Michelle Cutler are pioneers, both in Guelph and India. During their second year at OVC, the two decided they needed some experience outside the classroom — and country — to be successful veterinarians.

"In school, we're always being told that the global markets are opening up," says Stiles. "But without working outside Canada or the United States, there is no way to gain different experience or training."

So she and Cutler dreamt up the idea of Global Vets, a student-based program at OVC that gives students the opportunity to study veterinary medicine overseas. The women found a faculty adviser, went door to door searching for sponsors and made plans to meet with vets in India. "We decided we didn't have anything to lose," says Cutler.

The duo spent 9½ weeks in India last year, travelling by foot, bus and train. Armed with only enough clothing and supplies to fit in a backpack, they toured veterinary clinics, animal shelters and institutes, private practices and farms.

"We were there to observe and learn," says Stiles. "We wanted to see what veterinary medicine was like in India, learn their way of doing things." Adds Cutler: "We wanted to incorporate ourselves into the culture."

What they found in India was a thriving dairy industry and people taking in pets, mostly dogs, for the first time. They also learned that vets in India have less technology to work with but more collaboration, such as thriving co-op programs, dairy farms and systems of caring for animals. "It is more grassroots," says Cutler.

Now in their third year at OVC,



Enid Stiles, left, and Michelle Cutler visit a camel research institute in Rajasthan, India.

the two returned to Guelph with international knowledge and education, as well as a new respect for their chosen field. "India is an amazing country for veterinary medicine," says Stiles. "It has vast numbers of animals — 280 million cattle alone. The people have a special relationship with and affection for their ani-

mals, especially cattle."

Their journey took them to places like Bangalore, Bombay, Delhi and Hissar. Travel was difficult and slow, and temperatures and humidity were extreme.

"Travelling in India takes a ridiculous amount of time," says Cutler. "It takes about three times as

long as it should to go anywhere." Buses and trains would sometimes stop for hours on end.

During their trip, the women had to put up with some good-natured jabs about their marital status.

"Everyone wanted to know why we weren't married," says Cutler. Adds Stiles: "Being a woman made it an interesting experience. People couldn't believe we were two women travelling alone through India with our stuff in backpacks."

Their trip was sponsored by IAMS, Merial, Bayer, Pet Plan Insurance, Johnston & Peters, Toronto Dominion Bank, CIBC, Pond's Foto Source and U of G's Centre for International Programs. On their return, Stiles and Cutler held a slide show and information session for the sponsors and other vet students.

Their success means that Global Vets is here to stay. Each year, at least two OVC students between their second and third years will be chosen as Global Vets by a committee made up mostly of fellow students. Applicants must present a plan for international travel and make their own arrangements to visit schools, shelters and clinics. This year, students Jennifer Kays and Beverley Bateman were selected and will travel through Uganda, Kenya and Tanzania for nine weeks.

Stiles and Cutler take pride in knowing their pioneering efforts have made it possible for others to gain international experience and training.

"It was harder for us to get this started because we didn't have anything to show people; there were no success stories," Cutler says. "We've shown students can do it and that there are sponsors interested in helping students gain this type of experi-

Workshops Promote Positive Community

U of G's Couple and Family Therapy Centre and OUTline, a support service for the gay/lesbian/bisexual and transgendered community, are sponsoring workshops March 26 and April 9 on the experiences of transgendered and transsexual people. Both are open to the entire Guelph community.

The goal of the workshops is to increase understanding of transgendered and transsexual relationships, communities and personal resources, says Prof. Jean Turner, Family Relations and Applied Nutrition. "Transgendered people face a tremendous amount of discrimination and often struggle to access even basic health and social services," she says. "One of the purposes of having the workshops is to create a more educated and trans-positive community."

On March 26, Marshal McLernon, director of OUTline, presents "Trans 101: An Introduction to TG/TS Experiences, Issues and Politics" from 9:30 a.m. to 12:30 p.m. in Room 442 of the University Centre. Admission is free.

On April 9, Mirha Soleil-Ross, a Toronto-based educator and activist, discusses "Towards an Anti-Oppressive Therapy: Working with TG/TS Clients" from 9:30 a.m. to 12:30 p.m. in UC 441. Admission is \$20 for professionals who work off campus and free for all others.

The workshops are supported by the Women's Campus Safety Initiatives Fund. For more information, call Rosemary Sartori at Ext. 6426.

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LETTERS

Borrowing from RRSP for Home Ownership Has Merit, says Economics Professor

I agree with Prof. Jane Londerville in the Feb. 24 insight "The House That RRSPs Built" that the federal government's five-per-cent-down home ownership plan is questionable public policy. I disagree, however, that borrowing from an RRSP for home ownership — and perhaps home ownership itself — is not a good idea for most people.

To a substantial extent, the difference in opinion arises from differences in expectations about inflation. Prof. Londerville apparently believes that the rate of inflation and house price increases will be very low over the next 30 years, and I disagree. Let me set out several points that bear on the merits of home ownership and RRSPs.

- The evidence suggests that the value of the average house over the long term appreciates a little faster than the rate of inflation. If the rate of inflation stays at only about one per cent, a very low level compared with the average over the last half-century, and a house's value appreciates at two per cent, then a house worth \$150,000 today will be worth \$272,000 in 30 years. This is enough to justify Samantha, in Prof. Londerville's first example, borrowing from her RRSP to buy the house. In view of the inflation targets of the Bank of Canada and

the U.S. Federal Reserve, and the direction of the long-term bond market, it seems highly unlikely that the rate of inflation will continue as low as one per cent. If houses appreciate in nominal terms by only three per cent, Samantha's would be worth \$364,000 in 30 years, giving her even greater justification for borrowing from her RRSP for home ownership.

- Home equity and RRSPs are two different ways of sheltering income from tax. The return to building up home equity by paying down your mortgage is essentially equal to your mortgage interest rate, currently a little over six per cent (after a typical discount) for a five-year term. The return to GICs or long-term government investments in an RRSP is less than this. I agree with Prof. Londerville that the return to an RRSP portfolio of bonds and stocks should be more than this over the long term — although clearly it has not been over the last year. The returns to both tax shelters will rise in nominal terms if the rate of inflation rises.

This might suggest, if you can tolerate the risk of having a substantial part of your RRSP portfolio in stocks, that you should shelter your savings in an RRSP rather than in home equity, especially in view of

the deductibility of RRSP contributions from taxable income. (Of course, for most people, it's better to do both.) This ignores the far greater flexibility of the home equity tax shelter. First, there is no upper limit in any year (up to the value of your house) on the amount you put into home equity, whereas there is a limit on the amount contributed to an RRSP. There is, of course, a lower limit because the standard mortgage includes some forced saving in the form of repayment of principal. Second, home equity may be used as security for a personal line of credit or other loan, whereas this is prohibited by law for RRSPs. This can be very important. You may need a loan because of an unexpected expense or a business opportunity. Home equity makes it highly likely that you will be able to get that loan, and at a favourable interest rate. David de Meza, a recent visitor to the Department of Economics, has shown that increases in home equity have had a big impact on the start-up of new businesses in the United Kingdom. Finally, at age 69, you have to purchase a RIF with your RRSPs. You don't have to buy a RIF with your home equity and may use it for any purpose you choose.

The above analysis ignores the contribution to home equity of in-

creases in the price of the house, which over the long term I would expect to be substantial.

- The financial advantages of home ownership relative to renting clearly depend in part on how rents change. Over time, especially if there is a positive rate of inflation, it's reasonable to expect rents to rise. The Ontario government clearly thinks so because its rent increase guideline allows rents to rise by two per cent when inflation is zero. For this reason, while your mortgage payment plus operating expenses may be substantially higher than rent when home ownership begins, the difference will tend to erode over time, and rent will eventually be greater than home owners' cash payments. The higher the rate of inflation, the sooner this will happen.

- Good timing in purchasing a house is very important, just as it is in buying stocks. Buying a house when you might lose your job or move to another city soon is unwise. Becoming a home owner in 1989 in south-central Ontario was not a good idea. I was lucky enough to buy in 1972, so the annual appreciation rate of my house has been more than eight per cent, but the annual appreciation rate for those buying in

1989 has been negative or very low. Opportunities for good timing are not over, however. Those buying in Toronto a year or so ago have done well, and I expect those buying in the Guelph area over the same period will end up doing well, too.

- Your tax bracket is important. The advantages of any tax shelter are less when your marginal tax rate is low. One point that is relevant here, however, is that for the calculation of government assistance, only cash home ownership expenses are taken into account. Thus, if you have a low income, you will receive a higher federal government pension supplement if you are a home owner with a paid-off mortgage than if you are a renter with income derived from your RRSP savings. This general point is also relevant for the middle-income elderly contending with the old age security clawback.

All these points deal with the investment issues related to home ownership. But there are lots of consumption reasons for home ownership, including being able to live in a house you like, where you can renovate if you wish. There is also much more security of tenure than in rented accommodation.

Prof. Marion Steele
Department of Economics

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1991 Honda Civic two-door hatchback, five-speed, standard, grey/blue, air, AM/FM cassette, well maintained, nose bra, 188,000 kilometres, leave message at 856-0136.

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Chinese orchid, clivia, 823-0479 or send e-mail to ysong@uoguelph.ca.

Ledcor tapestry loom, 60 inches, wire heddles, three reeds, many other accessories, excellent condition, Ext. 6173 or send e-mail to spfeiffer.ns@aps.uoguelph.ca.

Five-bedroom house with finished basement, laundry, deck, dishwasher, College Avenue, Peter, 837-1300.

Three-bedroom bungalow on quiet street, close to recreation centre and schools, Barzotti kitchen, built-in dishwasher, ceramics, hardwood under carpet, central air, high-efficiency gas, separate entrance to finished basement with bedroom and three-piece bath, private yard, lots of upgrades, 836-6268.

Executive four-bedroom home in Hales Manor Estate, main-floor laundry, fireplace in family room, ensuite, large basement apartment, three-car drive, on cul-de-sac, no agents, 821-8494.

Estate lot in Fox Run Estates, 1.4 acres, close to 401, 763-7569.

Saltwater aquarium, 60 gallons, filters, pump, test kit, corals, sand, cabinet, 836-2342.

FOR RENT

One-bedroom apartment in two-storey house, private entrance, parking, suitable for one or two people, available immediately, \$600 a month inclusive, see Victor at UC exhibi-

tion cooking or call 821-5822 after 7:30 p.m.

Two-bedroom country home on one-acre lot, finished basement with third bedroom, recently renovated, large organic garden, available August 1999 for one year, Ann, Ext. 2508 or send e-mail to aclairk@plant.uoguelph.ca.

One bedroom available in two-bedroom house, share kitchen and bath, near downtown, on bus route, must like cats, first and last months' rent required, parking, available immediately, \$120 a month inclusive, 763-1316 after 6 p.m.

Four-bedroom older home, modern kitchen, finished basement, family cat, 10 minutes to campus, available May through August, \$1,400 a month plus utilities, 767-1333.

Furnished three-bedroom townhouse, five appliances, air conditioning, parking, non-smokers, no pets, references required, available May to October, \$850 a month plus utilities, 826-5950 or send e-mail to ccellis@sympatico.ca.

Four-bedroom home, laundry, appliances, central air and vac, storage, parking, large yard, close to downtown and bus routes, available May 1 to Aug. 31, non-smokers, Heather, Ext. 77934 or send e-mail to hgrant@uoguelph.ca.

Large one-bedroom apartment on 11th floor, parking, laundry, hot tub, downtown by Speed River, available May 1, one-year lease or summer sublet, \$625 a month, 826-6918.

Room in two-bedroom apartment in private home to share with one male student, three-piece bath, kitchen, laundry, cable, central air and vac, two blocks to campus, on bus route, non-smokers, no pets, no parking, Ext. 6528 or 822-2336.

Waterfront cottage on Sauble Beach, private, treed lot, available July 10 to 17 and last two weeks of August, \$880 per week, Ext. 8480.

One-bedroom renovated apartment on lower level in adult-only home, gas heat, air, laundry, parking, separate entrance, non-smokers, no pets, references required, first and last months' rent, available May 1, \$625 a month plus portion of hydro, 823-0331 after 5 p.m.

Two-bedroom condo on Janefield Avenue, lots of cupboards and closet space, five appliances, central air, laundry, mature professionals preferred, available May 1, \$950 a month, 905-844-9759.

Furnished luxury home, 2½ baths, convenient to campus, parks and Stone Road Mall, suitable for visiting faculty, available September 1999 to

May/June 2000, Ext. 2622 or send e-mail to gchapman@msnet.mathstat.uoguelph.ca.

Two furnished rooms to sublet in three-bedroom apartment, parking, laundry, \$180 a month plus utilities, 823-2880.

Two-storey coachhouse, one bedroom, den, open concept, five appliances, garden, parking, close to library, non-smokers, no pets, references required, available May 1, \$800 a month plus utilities, 836-7807.

Bachelor apartment on main floor in stone building, hardwood floors, high ceilings, large bedroom, mature non-smoker, \$500 a month inclusive, available April 1, 822-5515.

Furnished house for visiting professor or foreign student to share with owner, parking, garage, close to bus, \$500 a month inclusive, 824-0950.

Partially furnished two-bedroom basement apartment in new house, two students preferred, parking for two cars, separate entrance, \$350 a month per student inclusive, Grace, 824-4569.

Water-view cottage close to sandy beach in Sauble Beach area, suitable for four people, TV/VCR, equipped kitchen, propane barbecue, non-smokers, \$450 a week, Lynn, Ext. 4157 or 763-1236.

AVAILABLE

Minor in-line hockey league for children aged six to 16, Tuesday, Wednesday or Thursday evenings, \$170 per child, registration March 27 at Hockey Shop. For more information, call Kevin, Ext. 4263.

Mother of two will provide babysitting in a clean, non-smoking, pet-free environment for your child in her home, hot meals, educational activities, fenced-in yard, references provided, first-aid and CPR certifications, 836-8572.

Will do manuscripts, manuals, dictating, including proofreading, laser printing, 836-1775.

Experienced technical writer/editor for documents, newsletters, will copy edit, proof, tutor for writing courses, close to campus, 826-0707.

WANTED

Three-bedroom house to rent for month of August for parents visiting from Vancouver Island, house swap possible, Caroline, 519-888-9357 evenings or send e-mail to cmercer@connecttech.com.

Reliable person to proofread French and English technical material from May 1 to Aug. 31, 10 hours a week, access to fax machine, e-mail or

transportation necessary, Marlene, 763-8900 before April 9.

Older black-ink printer for a Mac, HP desk writer, Apple writer or style writer, Maurice, Ext. 3352 or 763-0449.

Plant pathology and entomology texts, 821-5668.

Three-bedroom home to rent for one year beginning July 1, mature professional, prefer St. George's Park/Guelph General Hospital area, Ext. 3922 or 823-9261 evenings.

Room for post-graduate student from May 8 to June 25, send e-mail to dedge@xtra.co.nz.

Furnished house for month of July, send e-mail to yeelai@ust.hk or write to Yee Lai Wang, Department of Chemistry, Hong Kong University of Science and Technology, Hong Kong.

Two- or three-bedroom house/townhouse close to campus for family for Sept. 1, preferably under \$1,000 inclusive, Lisa, 416-781-0144 or send e-mail to wylie@interlog.com.

Three-bedroom house in mature area of Guelph for family, Ext. 2670 or send e-mail to jgraham@ath.uoguelph.ca.

Bachelor apartment or shared accommodation for student for May 1, Pauline, 403-522-2803.

Spacious one-bedroom apartment in tidy, secure building for young employed female, rent up to \$500 a month inclusive, Sheri, Ext. 2906.

Two- or three-bedroom house or townhouse within 15 minutes of campus, laundry, parking, needed for late May or June 1, Antonio, 306-966-7062 or send e-mail to cruz@admin3.usask.ca.

Lawn bowls, Lloyd, 843-5834.

Farm and/or farmhouse in Guelph area for responsible family of five for May 1, references available, leave message at 837-2304, Ext. 16.

Classifieds is a free service available to staff, faculty, students, alumni and retirees of the University. Submit items by Wednesday at noon.

HAVE FUN WITH HISTORY



The second set of questions in an OAC 125 quiz to test your knowledge of college history.

26. Which principal served the shortest time?
27. In 1897/98, how many course options were available to students?
28. Who was the first rector?
29. Who was the second rector?
30. Where did the principal/president live until 1929?
31. What connection did John McCrae have with the college?
32. When did the first principal begin service?
33. Who was the landscape architect for the first arboretum?
34. When was the first meeting of the Agricultural and Experimental Union?
35. What were Farmers' Institutes?
36. What was the minimum age for students in 1874?
37. What was the educational requirement for entrance in 1876?
38. Who was the first faculty member to become deputy minister of agriculture?
39. What were the two independent divisions of the school?
40. Where was the current President's House until 1912?
41. William Johnston copied the administrative structure of what college?
42. Where was the early OAC museum?
43. Who was professor of agriculture at the University of Toronto in 1874?
44. Why did Thomas Scoble come to the school in 1874?
45. When did the first students enter?
46. Diplomas in agriculture earned from 1875 to 1880 were awarded when?
47. When did work begin to enlarge Moreton Lodge?
48. When was gas lighting made available to the college?
49. What did the Provincial Farm Commission of 1873 do?
50. When was the first dairy short course given?

Find the answers in this listing:
May 1, 1874 – Agricultural and Experimental Union – to restore order among the students – Environmental Biology – in the main residence – Charles James – William F. Clarke – "Capability" Brown – the college and the farm – 1873 – The Royal College of Agriculture, Cirencester, England – Charles Roberts – as the first veterinarian – George Buckland – high school entrance certificate – local farmers' groups – 1890 – William Johnston – 1892 – 15 – 1880 – Creelman Hall site – in the present J.D. MacLachlan Building – as a student – graduation from Junior Fourth – as assistant resident and mathematical master – recommended the site near Guelph for the School of Agriculture – Nova Scotia Agricultural College – 1874 – Walter Clark – Mills Hall site – Charles Miller – 1901 – 1893 – provided terms of reference for what was to become OAC – Victor Chanayak – surveying the farm – 1878 – sit.

Check your answers on the OAC 125 Web site at www.oac.uoguelph.ca/OAC125 or in the next issue of @Guelph.

ARBORETUM

Horticulturist Henry Kock and naturalist Chris Earley will lead a one-day workshop on "A Life Zone Approach to Naturalization" April 13 and 20 from 9 a.m. to 5 p.m. Cost is \$55. Registration and payment are required by March 30. To register, call Ext. 4110.

Naturalist Chris Earley will lead workshops on warblers in April and May. Level 1, "Butterflies of the Bird World," runs April 12 and 19 at 7 p.m., with an outdoor hike slated for May 15 at 6:30 a.m. Cost is \$58. Registration deadline is March 31. Level 2, "The Less Common Ones," runs April 26 and May 3 at 7 p.m. Cost is \$39. Register by April 19.

Theatre in the Trees presents the dinner-theatre comedy *The Second Time Around* by Henry Denker Saturdays until April 24 at the Arboretum Centre. Doors open at 6 p.m.; showtime is 8 p.m. Tickets are \$45 and are available at Ext. 4110.

ART CENTRE

Opening March 31 at the Macdonald Stewart Art Centre are the exhibitions "Verne Harrison: The Museum Chronicles A Post-Modern Parody," "A.J. Casson: An Artist's Life" and "Sowing the Seeds: the 125th Anniversary of the Ontario Agricultural College." An opening reception begins at 7:30 p.m. Christopher Jackson will give a curator's talk on the Casson exhibition April 6 at noon.

On the fourth Sunday of the month, the art centre's volunteer docents will lead a free public tour of the centre's exhibitions and sculpture park at 2 p.m. Spring tours are slated for March 28, April 25 and May 23.

A video screening of *Hip Hop Culture* runs April 9 at 6 p.m. at the art centre.

CONCERTS

The winter Thursdays at Noon concert series continues March 25 with the U of G Concert Winds and April 1 with a student soloists' day in MacKinnon 107. Admission is free, but donations are welcome.

The U of G Concert Winds and Jazz Ensemble, conducted by John Goddard and Prof. Howard Spring, perform April 8 at 8 p.m. at War Memorial Hall. Tickets are \$15 and \$8 and are available at the door and in MacKinnon 211.

The U of G Orchestra and Choir conducted by Henry Janzen perform Haydn's *Creation* April 9 at 8 p.m. at the River Run Centre. Soloists are soprano Theresa Thibodeau, tenor Glyn Evans and baritone John Medina. Tickets are \$15 and \$8 and are available from the River Run Centre at 763-3000 or in MacKinnon 211.

The Central Student Association presents the Cuban band Cubanismo April 11 at 8 p.m. at the River Run Centre. Tickets are \$30 general, \$20 for U of G undergraduates, and are available by calling 763-3000.

NOTICES

Fourth-year landscape architecture students present "Redefining the Boundary," an exhibition of community design works related to the development of Guelph's south end, April 7 from 1:30 to 5 p.m. in the Landscape Architecture Building. For more information, call Prof. Nancy Pollock-Ellwand at Ext. 6577.

The U of G Child-Care Centre is looking for donations of unwanted items for its second annual garage sale, slated for April 24 from 9 a.m. to 3 p.m. in the centre's parking lot. Donations will be accepted anytime during April. Proceeds from the sale will be used to buy learning resources for the centre. For more details, call Ext. 2682.

Host families are sought for U of G international English-language students looking for an opportunity to increase their immersion experience and learn about Canadian culture. Stays last a month or longer. Host families are paid \$600 a month per student. For more information, call the Homestay Office at 244-8135.

The Association of Universities and Colleges of Canada will administer a new program on behalf of the International Development Research Centre called the Academic Fellowship for Ecosystem Approaches to Human Health. The goal of the three-year fellowship, valued at \$395,000, is to promote research and teaching in this emerging field. Applicants must hold a PhD, have at least two years of independent research experience and hold a regular position at a Canadian university during the fellowship. Letters of intent are due April 30. Guidelines are available on the Web at www.aucc.ca or by e-mail at cmatheso@aucc.ca.

Tradition and Tomorrow, a CD featuring U of G's music ensembles, is available for \$10 from Donna Pollard in Room 210 of the MacKinnon Building, Ext. 3127.

The Centre for International Programs is selling T-shirts picturing all the flags of the world. Cost is \$16.05. To purchase one, drop by the CIP office on Level 2 of Day Hall.

The University of Alberta International Centre is leading a group to Cuba to participate in a four-week Spanish language and culture immersion program from July 23 to Aug. 21. The program is open to students and staff. Application deadline is March 31. For more information, call Carmen Carvajal at 780-492-2692 or send e-mail to Carmen.Carvajal@ualberta.ca.

SEMINARS

The Department of Philosophy presents Michael Gilbert of York University discussing "Modes, Coalescence and Pragma-Dialectics" March 26, U of G graduate student Doug Al-Maini March 31, Georges Dicker of SUNY Brockport on "Berkeley on the Impossibility of Abstracting Primary from Secondary Qualities: Some Lockean Rejoinders" April 9 and Jill McIntosh of the University of Western Ontario April 16. All talks begin at 3:30 p.m. in MacKinnon 314.

Lakehead University biologist Doug Morris is guest speaker in the Department of Zoology seminar series March 26. His topic is "Habitat and the Evolutionary Paradigm: Testing Theory with Natural Selections." On March 31, Prof. Alan Wildeman, Molecular Biology and Genetics, explains "DNA Tumour Viruses: A Long, Hard Lesson." Seminars begin at 4 p.m. in Alexrod 265A.

Guest speaker in the Department of Molecular Biology and Genetics seminar series March 26 is Prof. Peter Krell, Microbiology, who discusses "Baculovirus Replication." On April 9, Prof. Mark Baker, Pathobiology and Molecular Biology and Genetics, focuses on "Molecular Mechanisms of Homologous Recombination in Mammalian Cells." The seminars are at noon in Alexrod 028.

Next up in the Department of Human Biology and Nutritional Sciences graduate seminar series is Bob Fitts of Marquette University in Milwaukee explaining "Cellular Mechanisms of Skeletal Muscle Fatigue: E-C Coupling and Cross Bridge Events" March 29. On April 5, graduate student Jason Pesschell offers "The Evaluation of a Garlic-Containing Vegetable-Based Beverage on Blood Lipid Profiles in Hypercholesterolemic Men." The seminars begin at 3 p.m. in Animal Science and Nutrition 141.

The Department of Animal and Poultry Science graduate seminar series continues March 30 with Jalal Fatehi explaining "Analysis of Genetic Aspects of Advanced Reproductive Biotechnologies in Dairy Cattle," April 6 with Deborah McWilliams on "Leadbeater's Possum: Nutritional and Environmental Challenges for Captive Possums in Eight Zoos" and April 7 with Becky Harrison on "Protein and Amino Acid Partitioning in the Porcupine." These seminars begin at 11:30 a.m. in Animal Science and Nutrition 141. On April 7 at 12:15 p.m., Michelle Seaborn examines "The Effect of Protein in the Diets of Young Large-Breed Dogs on Growth and the Incidence of Canine Hip Dysplasia."

Next up in the Alexrod Institute of Ichthyology Loaves and Fishes seminar series is a discussion of "Upper

Lethal Temperatures: Their Significance in Fish Building" by Robert McCauley of Wilfrid Laurier University March 30. On April 6, Bryan Neff of the University of Toronto examines "Bluegills, Microsatellites and Evolution." The seminars are at 12:30 p.m. in Axelrod 168.

The Department of Microbiology presents Arthur Koch of Indiana University discussing "Patchiness of Insertion of Murein in the Sidewall of *E. coli*" March 30 at 2:30 p.m. in OVC 1715. On April 1, David Pink of St. Francis Xavier University presents "Hey, Man! What's With Lipopolysaccharide and Peptidoglycan in Gram Negative Bacteria?" at 1:30 p.m. in Chemistry and Microbiology 260.

The Department of Physics presents the Canadian Association of Physicists Undergraduate Lecture March 30, with Shaun Lovejoy of McGill University discussing "Our Multifractal World: From Galaxies to Clouds and Landscape." On April 6, Robert Sica of the University of Western Ontario explains "Coupling of the Lower and Middle Atmosphere by Gravity Waves." The talks begin at 4 p.m. in MacNaughton 113.

Next up in the biochemistry seminar series is graduate student Carla Shoudice explaining "A Novel Nucleating Factor for Tubulin Assembly" April 8 at noon in MacNaughton 222.

Guest speaker in the Department of Molecular Biology and Genetics seminar series April 2 is Roderick McInnes of the Hospital for Sick Children. His topic is "Molecular Genetics of Retinal Development and Retinal Degeneration" at noon in Axelrod 028.

THEATRE

Drama students present one-act plays March 25 to 27 and April 1 to 2 at the Lower Massey Hall theatre. All performances begin at 8 p.m. Tickets are \$3 and available at the door.

THESIS DEFENCES

The final examination of M.Sc. candidate Carol-Anne Pilley, Zoology, is March 29 at 2 p.m. in Axelrod 265A. The thesis is "The Mechanisms of Urea Transport in Embryos of Rainbow Trout (*Oncorhynchus mykiss*). The adviser is Prof. Patricia Wright.

The final examination of M.Sc. candidate Emily Dimson, Botany, is April 1 at 10 a.m. in Axelrod 309. The thesis is "Development and Desiccation Tolerance of the Seeds of *Acer rubrum* L., *Acer saccharinum* L. and Their Hybrid, *Acer X freemanii* Murray. The adviser is Prof. John Greenwood.

The final examination of Michael Irvine, a PhD candidate in the Department of Plant Agriculture, is

April 8. The seminar is at 9 a.m. in Crop Science 116, followed by the defence in Room 302A. The thesis is "Toward an Integrated Weed Management Strategy for Bareroot Forest Nurseries." The adviser is Prof. Clarence Swanton.

The final examination of Irene Kyle, Family Relations and Applied Nutrition, is April 13 at 9 a.m. in Hafa 243. The thesis is "Rethinking Care Work in Home Child Care: Providers' Perspectives in Context." The adviser is Prof. Donna Lero.

WORSHIP

An ecumenical Good Friday service will be held April 2 at 3 p.m. in UC 103. On Easter, April 4, a Taizé service begins at 7:30 p.m. in UC 103.

COMMUNITY EVENTS

The AIDS Committee of Guelph and Wellington County will hold its annual "A Day with Art" gala auction March 27 at the Guelph Lakes Golf and Country Club. Doors open at 6:30 p.m. Admission is \$15.

The Wellington Society for the Countryside Program presents a lecture and workshop series on "How to Develop Stewardship and Landscape Plans for Farms and Rural Properties." Lectures run March 31 and April 7 at 7 p.m. in Aboyne Hall, Wellington Place. Workshops follow April 14, 21 and 28. Cost is \$20 for the lectures only or \$150 for the entire program (\$130 for members). Advance registration is required. Register with George Smith, School of Landscape Architecture, Ext. 3556 or 519-748-1169, e-mail: grsmith@golden.net.

The Big Sister Association of Guelph will hold a Spring Swing Auction April 8 at 7:30 p.m. at the Cutten Club. Cost is \$15. For tickets, call 824-0800 or Ext. 3343.

The Guelph Historical Society meets April 6 at 8 p.m. at St. Andrews Church. Guest speaker Hugh MacMillan presents "The Adventures of a Paper Sleuth."

"Healthy Pursuits," a workshop for women, by women, on the four steps to balanced health, runs April 10 from 10 a.m. to 4 p.m. at Ignatius College. Cost is \$45. Proceeds will benefit Guelph Women in Crisis. To register, call 836-2686 or 763-2885.

Guelph Women in Networking will hold a dinner meeting April 6 at 6 p.m. at the Cutten Club. Guest speaker Renata Radek will discuss "Clearing the Path to Success." Cost is \$29 for non-members, \$25 for members. To reserve a seat, call 766-9346 or 822-7816 by March 29.

The Guelph Spring Festival holds its annual fund-raising garage sale March 28 from noon to 3 p.m. at the Guelph Farmers' Market. Admission is \$2.



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IN THIS ISSUE

2 B OF G approves preliminary 1999/2000 MET operating budget.

6 IS LOVE a kind of addiction?

7 NEW CHAIR set to navigate Department of Agricultural Economics and Business into the future.

7 SENIORS enlisted to design nutrition education program.

10 FACING the facts about Y2K on campus.

SSHRC Supports Cultural Studies

Academics to collaborate with community groups

ALMOST \$200,000 in research grants from the Social Sciences and Humanities Research Council (SSHRC) will help U of G's Centre for Cultural Studies (CCS) chip away at the old image of an ivory tower that separates academic research from community experience. In its place, CCS members and director Prof. Christine Bold are building crucial partnerships that have the potential to reshape university roles in society.

That's been the goal of the centre since its establishment in 1996, says Bold, who is ecstatic about the grants because they give national recognition to the centre's collaborative work. SSHRC has awarded a \$120,000 strategic research grant over three years to a cultural memory project centred around Marianne's Park in Guelph and more than \$63,000 from its new Research Development Initiatives program to promote the collaborative aspects of music, theatre and visual art programming tied to the Guelph Jazz Festival.

Prof. Larry Milligan, vice-president (research), says the SSHRC funding is significant in several ways. "In the humanities, these are major awards, and they are among the first awarded by

Continued on page 9



ZAP!

Engineering student Graham Nasby is the first undergraduate to apply for a patent through U of G. His idea: better and safer circuitry for electrical meters. See story on page 3.

PHOTO BY DEAN PALMER/SCENARIO IMAGING

COU Takes Its Case to Public

Most Ontarians agree increased government funding of universities should be a priority

Leaders of Ontario universities have lobbied for years for increased provincial funding of higher education. Last week, armed with two new external studies plus its own report and recommendations, the Council of Ontario Universities (COU) took its case directly to the public at a Queen's Park press conference.

The stepped-up campaign is part of a larger and ongoing COU advocacy effort to restore public funding to universities. An enormous projected jump in demand for places at university has caught the attention of the provincial government and the public. As many as 89,000 or 40 per cent more students could seek admission by 2010 — compared with the 229,000 enrolled currently — with the surge in demand expected to begin in 2002/03 as 30,000 to 40,000 students seek university opportunities because of the elimination of Grade 13.

Three key documents were presented to the media March 31. A PricewaterhouseCoopers report titled *Will There Be Room for Me?* examines future capacity of Ontario uni-

versities and a report on their current status, with detailed analyses of growing demand for university places, future faculty shortages, physical infrastructure, research funding and the overall deteriorating quality and financial position of universities. A second document, the *Meeting Expectations Project*, consists of Angus Reid Group surveys of 1,000 Ontario residents and 31 business leaders. The surveys were commissioned by COU's government and community relations committee, which is chaired by president Mordechai Rozanski.

Will There Be Room for Me? and the *Meeting Expectations Project* were complemented by a COU report, *Ontario's Students, Ontario's Future*, which synthesized the findings of both documents and provided public policy recommendations on steps the government should take to restore quality and accessibility, chiefly through increased operating grants and student assistance. (The COU report is available on the World Wide Web at www.cou.on.ca.)

The reports have been tabled with the Ministry of Education and

Training and other government ministries, including the Ministry of Finance.

In making its case for renewed public funding, COU notes that several crucial trends will converge over the next several years, putting the province at a critical crossroads. To deal with them, action is needed now. First is the projected enrolment increase province-wide of between 53,900 and 88,900 students over the next decade, including 30,000 to 40,000 additional students in 2003 when Grade 13 is eliminated from high schools, the so-called "double cohort." COU says the magnitude of the challenge is brought home when one considers there are only 229,000 students at Ontario universities at any given time and that universities are currently at or near capacity under diminished circumstances.

As critical is a faculty retirement bulge that will occur at roughly the same time as the double cohort. This, plus the need to restore student-to-faculty ratios to the 1:16 average of the other nine provinces and the need to sustain this "quality" ratio

Continued on page 8

Four Projects Get CFI Funding

University to receive close to \$5.4 million

THE UNIVERSITY OF GUELPH will receive almost \$5.4 million for four projects approved last week under the Canada Foundation for Innovation's (CFI) Institutional Innovation Fund.

Combined with potential matching funds from the provincial government and from institutional funding, the new money could translate into a total of about \$13.5 million for these collaborative projects involving some 70 U of G researchers.

Noting that the awards reflect Guelph's research strengths, Prof. Larry Milligan, vice-president (research), says it's "profoundly important for the University of Guelph to obtain this kind of boost in its research infrastructure."

Intended to increase innovation capacity at Canadian universities and research institutions, CFI pays for up to 40 per cent of a project's infrastructure costs from a \$1-billion federal fund. Through the Ontario Research and Development Challenge Fund (ORDCF) — \$500 million allotted by the province for research excellence and partnerships — Queen's Park matches CFI funding from a designated \$135-million envelope. Universities are expected to obtain a further 20 per cent from institutional or private-sector funding.

Noting that five U of G projects were under consideration for the current funding round, Prof. Ross Hallett, Physics, says that "to have four out of five projects funded is excellent. That reflects extremely well on the University." Hallett was recently seconded for a two-year appointment as assistant vice-president (research infrastructure programs) to co-ordinate U of G's applications to both the CFI and the ORDCF (see story on page 5).

The four approved projects, their project leaders and approved funding amounts from the CFI are:

- "Genes to Proteins: Advanced Macromolecular Analysis," Prof. David Evans, Molecular Biology and Genetics (\$390,927);

Continued on page 4

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BOARD OF GOVERNORS

Governors Approve 1999/2000 Preliminary MET Operating Budget

BOARD OF GOVERNORS approved U of G's 1999/2000 preliminary Ministry of Education and Training operating budget following more than two hours of discussion and student presentations March 25. Most board members said they were unhappy with the 9.5-per-cent increase in undergraduate tuition contained in the budget, but they recognized that the

University has few options, given its projected \$12.3-million budget shortfall and limited government funding. They expressed concern that after years of chronic underfunding, U of G has already restructured and cut in so many areas that any further reductions could have a serious impact on the quality of the institution.

Governors were pleased to learn that an additional \$2.4 million in student financial assistance will be available at the University in 1999/2000, an increase of 32 per cent. It's estimated that financial aid will total more than \$10 million in the coming academic year. It was also noted that undergraduate tuition at U of G is lower than the system average. (For more details on the budget, visit the U of G Web page or see the March 10 issue of @Guelph).

In presenting the preliminary budget, John Miles, assistant vice-president (finance), told B of G that the \$12.3-million shortfall is the result of a \$6.8-million base structural problem, a provision of approximately \$4 million for salaries and benefits for 10 employee groups and a proposed \$1.4-million investment in maintaining quality for students.

Miles said U of G has identified \$8.3 million in cost savings and new revenues that will cover 67 per cent of the shortfall and that the tuition increase will generate \$2.8 million in net revenue, about 23 per cent of the solution.

After additional contributions from ancillaries, the gap will be about \$1 million. This gap will be closed by the time a final budget is presented in the fall by relying on a combination of year-end savings, enrolment increases or, as a last resort, clawbacks.

Prof. Alastair Summerlee, acting associate vice-president (academic) and chair of the Enrolment Management Committee, informed B of G that more than 50 meetings had been held with students, staff, faculty and alumni on the preliminary budget.

A number of recommendations from those meetings were incorporated into the budget, including not pursuing further differentiation of U of G academic programs at this time, he said.

Central Student Association (CSA) representatives Jessica Carn and Dee Madden told governors that the tuition increase would place an undue burden on students. They noted that tuition has increased 131 per cent in the past nine years.

Students are cutting back on class and study time so they can work to fund their schooling, Carn said. She added that financial assistance is available to only a limited number of students and that provincial underfunding cannot be balanced on the backs of students. She urged governors to begin thinking of other alternatives for next year.

Governor Larry Pearson expressed concern about the impact the tuition increase may have on returning students. President Mordechai Rozanski said that a key to enrolment and retention will be increased student aid. The University recognizes that more financial support needs to be found for the large number of students who aren't eligible for OSAP, needs-based scholarships or merit-based awards.

Graduate student governor James Rodgers said Guelph is depending too much on the tuition increase to make up the budget shortfall. Students are already having a difficult time financially and will graduate with increasingly larger debt loads, he said.

Undergraduate student governor Mitch MacDonald added that raising tuition is a short-term answer and that the only real solution is the restoration of public funding. U of G must continue to push for increased government support, he said.

Rozanski noted that the Council of Ontario Universities continues to lobby strongly for increased funding and recently took its case to Queen's Park armed with the results of a recent province-wide Angus Reid poll and a report prepared by PricewaterhouseCoopers indicating the urgent need to reinvest to accommodate increased demand for university places over the next decade (see story on page 1).

B of G chair Doug Dodds told governors he was encouraged this year because it was the first time in five years that the government did not cut funding to higher education.

He added that U of G has already made substantial cuts over the years because of decreased government support and that further cuts are

not possible without affecting quality.

Rozanski told the board he shares the concerns over the tuition increase, but said quality would be in jeopardy without it. Guelph's commitment to quality is reflected in the budget allotment of \$1.4 million for maintaining quality for students, he said. This will go towards library acquisitions, graduate student aid, classroom maintenance, undergraduate scholarships and co-op education.

FEE INCREASES APPROVED

Governors approved small increases for non-tuition compulsory student fees and a one-per-cent increase in parent fees at the U of G Child-Care and Learning Centre. Governors also approved increases in parking rates as part of the Parking Administration's budget (see story on page 3).

STUDENT MEMBERS ELECTED

Winners of recent student elections for three seats on B of G were announced. They are undergraduate students Julie Cugali and Jeff Ramlogan and graduate student Susan Abraham.

Cugali is a third-year international development student specializing in rural and agricultural development. She is a recipient of the national Terry Fox Humanitarian Scholarship.

Ramlogan is a third-year microbiology student who has served on the CSA and as a volunteer for the peer helper program.

Abraham is a PhD student in the Department of Food Science who has won numerous teaching awards and is a member of various professional bodies, including the Canadian Institute of Food Science and Technology.

FUND-RAISING UPDATE

John Mabley, vice-president (development and public affairs), submitted a report that said fund-raising activity for the current year is off to a vigorous start, with results to date already \$400,000 ahead of last year. In 1998, total cash giving reached \$7.61 million, exceeding the year's target.

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UNIVERSITY
OF GUELPH

CO-OP EDUCATION FOCUS OF CHAMBER

U of G hosted the Chamber of Commerce's "Business After Five" program for the first time March 23 during National Co-operative Education Week. Dozens of members of the Guelph business community turned out for a reception, a presentation on co-op education, displays and tours of the University's new co-op facilities. Provost Iain Campbell outlined the breadth of U of G's co-op program, recent developments, plans for the future and the partnership opportunities available for members of the Guelph community. U of G presented its Co-operative Education Employer of the Year Award to Uniroyal, which was represented by David Brewer, and its Co-op Education Student of the Year Award to Katherine Knox. Tribute was also paid to student Tammy Lee, this year's National Co-op Education Student of the Year.

REUNION PICNIC CELEBRATES OAC, OMAFRA CONNECTIONS

U of G will host a reunion picnic for all current and former employees of the Ontario Agricultural College and the Ontario Ministry of Agriculture, Food and Rural Affairs April 30 at noon in front of Johnston Hall. The reunion commemorates the 125-year relationship between OMAFRA and OAC. Cost is \$10 per person. Registration forms are available in Johnston Hall, at OMAFRA county offices, at Ridgeway, Kempsville and Alfred colleges, at the Horticultural Research Institute of Ontario and at U of G research stations. To register by phone, call Agnes Allen in the OAC dean's office at Ext. 3076.

MORRIS HONOURED

The George Morris Centre has established a fellowship to honour the contributions to Canadian agriculture of the centre's founder, George Morris, who died in January. The fellowship will support innovative policy projects by leaders in business and academia. A fund-raising barbecue in support of the fellowship will be held June 18 from 11:30 a.m. to 1:30 p.m. at the Farm Museum. Tickets are \$100. For more details, call Fiona Stirling at 822-3929, Ext. 205.

LIBRARY HOURS EXTENDED DURING FINAL EXAMS

From April 12 to 22, the McLaughlin Library will be open extended hours as follows: 8:30 a.m. to 1:15 a.m. Monday to Friday and 10 a.m. to 1:15 a.m. on weekends and holidays. During this period, the Veterinary Science Library will be open from 8:30 a.m. to midnight Monday to Friday and 10 a.m. to midnight on weekends. From April 23 to 30, both libraries will be open from 8:30 a.m. to midnight Monday to Friday and 10 a.m. to midnight on the weekend. On May 1 and 2, McLaughlin will be open from noon to 7 p.m., and Veterinary Science will be closed.

Testing, Testing...

Engineering student is first undergraduate to apply for a patent through U of G

THE CALL FROM a U of G inventor early this year caught Patricia Power somewhat by surprise. Not that the call itself was unusual. As intellectual property manager for the Business Development Office in U of G's Office of Research, Power helps faculty from across campus file an average of one or two patent applications a month. But this time, the caller was not a faculty member but a second-year undergraduate student in the School of Engineering.

By the end of February, Power had filed an application with the Canadian Patent Office to protect a concept developed by engineering systems and computing student Graham Nasby, the first undergraduate to apply for a patent through U of G.

With his idea potentially protected by the application, he has until next February to develop a prototype of his invention — a design for improved protective circuitry to replace cumbersome fuses in electrical testing equipment.

Nasby believes his idea will attract interest from makers of meters used in everything from checking basement fuse panels to testing large industrial machinery. The worldwide market for electrical testing devices is estimated to be worth \$2 billion a year.

Nasby's idea is an attempt to correct what he sees as a fundamental design flaw in meters. These devices come equipped with fuses designed to blow at threshold voltages, a safety measure that prevents the instruments from frying under excessive jolts of electricity. That's a great failsafe for protecting the tester itself, he says, but it doesn't do much for the worker with a "zero" reading on the instrument. Which is dead: your meter or the electrical system you're testing?

Guessing incorrectly could mean a nasty jolt for a hobbyist in a basement workshop or a technician at a university lab bench. For an industrial electrician working on a huge piece of equipment, the consequences could be far worse. At best, the electrician would have to postpone the job until the tester itself could be tested. Meter failure happens fairly often, says Nasby, adding that "if I was an electrician, I would rather be concerned about doing the

job than whether the meter was working."

He began considering the idea a couple of years ago after he had turned his boyhood penchant for tinkering — which included rewiring the family sailboat — into a marine electrical business in Penetanguishene. After one episode with an unresponsive tester, he began looking for a meter without fuses.

After learning that no such instrument existed, he sketched out a design for circuitry that meter manufacturers could use to improve the safety and reliability of testing



equipment. Needing help in patenting his invention, he contacted U of G's Office of Research early this year. Normally, the filing process takes about a month and a half. But with only a week to go before Nasby planned to present his idea at a provincial engineering competition, Power's office had to scramble to file the application.

Nasby will spend the summer developing the prototype to gain full patent protection by year's end (inventors have a year from the date of application to complete their prototypes and requisite documentation). Power's office will look at the prototype, seek professional advice on its feasibility and do an extensive literature search on its patent and market potential before updating the Canadian patent application or filing for further protection abroad.

Under U of G's invention policy, Guelph University Alumni Research and Development (GUARD) — a corporation set up to commercialize research ideas — has 60 days to take up the option on a patented invention. If GUARD declines the option, the University will either pursue the idea or sign the option back to Nasby.

U of G might consider licensing the technology to instrument manufacturers or perhaps setting up a spinoff company to develop the idea. Royalties from eventual use of the invention would be shared by the University and Nasby, although neither he nor Power knows how much his concept might be worth.

Nasby says he's surprised that no one had come up with his concept before now, especially meter manufacturers themselves. Says Power: "Sometimes the most obvious things are the patents that are going to make the most money."

Although he developed the invention strictly in his spare time, the concept intersects with the student's interest in system design and interaction. "I'm interested in learning why something works, its history, how they came to it," he says. He believes equipment or system failure often stems from poor design. "A well-designed system or piece of equipment should be easy to use," says Nasby, who tries to practise that principle as a part-time Web page designer.

This summer, he will begin the first work placement of his five-year co-op program. After completing his degree, he might pursue systems engineering at the graduate level, then consider a career in industrial design or public relations. "He's obviously a bright student," says Power. "He's had experience in using this equipment in a commercial setting."

Turning to instruments of a different sort, Nasby is also considering completing a minor in music. An accomplished clarinetist, he is concertmaster of both the U of G Concert Winds and the Guelph Concert Band and has played recorder with the University's Early Music Ensemble. Occasionally, he lays aside the clarinet for choral singing, as in a recent concert at the Macdonald Stewart Art Centre, where his mother, Judy, is director.

BY ANDREW VOWLES

PEOPLE

WARDLAW WINS WOMEN OF DISTINCTION AWARD

Retired U of G professor Janet Wardlaw, former associate vice-president (academic), is this year's recipient of the YMCA-YWCA's Women of Distinction Award for Lifetime Achievement. A faculty member at Guelph from 1966 to 1987, Wardlaw guided the creation of the former College of Family and Consumer Studies and was its founding dean, served as acting vice-president (academic) for a year and was associate vice-president (academic) from 1984 until her retirement. During this time, she also chaired the International Development Research Centre. The Women of Distinction award will be presented in May.

SIGMA XI HONOURS SIX

The Guelph chapter of Sigma Xi will honour five members of the University community and a local high school teacher at an awards banquet April 13 at 7 p.m. at the Whippletree. Prof. Paul Hebert, chair of the Department of Zoology, will receive the Excellence in Research Award and will present a seminar at 4 p.m. in Room 100 of the Axelrod Building. His topic is "Confronting Catastrophism — Evolution in the New Millennium." The Ingram Award will be awarded to PhD student Nickolay Golego, Chemistry and Biochemistry. M.Sc. student Gordon Lemon, Botany, will receive the Armstrong Award. The Support of Research Award will be presented to Jim Hoare, network administrator, Web master and information technology technician/manager in the Department of Plant Agriculture; and to Angela Hollis, DNA analysis technician in CBS. The annual High School Science Teacher Award goes to Susan McPhedran of Centre Wellington District High School. Tickets for the banquet are \$25 general, \$20 for students, and are available from Prof. David Noakes at Ext. 2747 and Prof. Bev Hale at Ext. 3434.

ENGLISH PROF GIVES KEYNOTE ADDRESS

Prof. Diana Brydon, director of the School of Literatures and Performance Studies in English, delivered a keynote address at the Compr(om)ising Post-colonialisms Conference at the University of Wollongong, Australia, in February. The paper was titled "Laugh of the Fur Queen: Contemporary Post-colonial Debates." She delivered a revised version of this paper at the University of Western Ontario in March.

POET FEATURED ON CD

Guelph poet Marianne Micros, a sessional instructor in the School of Literatures and Performance Studies in English, is featured on a new spoken-word CD containing the voices of 25 poets from southwestern Ontario. Titled *Southwest Words*, the CD was recorded in London and released by the literary press ERGO Productions. A launch party for the CD will be held April 10 in London.

Parking Rates to Rise May 1

BOARD OF GOVERNORS has approved an increase in parking permit rates effective May 1, 1999. The cost of the annual commuting permit will rise \$15 to \$198 (plus taxes). Most commuting students will pay \$10 more because they are here for only two semesters. Resident students will pay \$77.78 for two semesters, an increase of \$5.78.

Even with the increase, U of G's 1999/2000 commuting rate is con-

siderably lower than the 1998/99 rates charged at comparable Ontario universities, says Nancy Sullivan, vice-president (finance and administration). The University of Waterloo's rate, for example, is \$240 a year, and McMaster charges \$345.

The increase will allow Parking Administration to contribute an additional \$100,000 towards meeting the University's budget gap, says Sullivan. It will also fund planned

maintenance of roadways and parking lots, as well as lot safety enhancements such as telephones, lighting and video surveillance.

As recommended by the Advisory Committee on Parking, a new charge for off-campus commercial/service vehicle permits will be introduced May 1.

For more information, call Lucie Turner, manager of Parking Administration, Ext. 2328.

In this issue, we launch a new column highlighting members of the University community recently in the news.

- Prof. Vernon Thomas, Zoology, was interviewed by about a dozen Canadian radio stations (most of them syndicates of the CBC) March 12 about the snow goose population. Thomas was asked about the plan to extend the snow goose hunting season and increase the bag limit to reduce the population. He has spent years researching snow geese and Canada geese around Hudson and James bays.

- Research by Medhat Nasr, a research entomologist in the Applied Ecology Anthecology Laboratory in the Department of Environmental Biology, was highlighted in a column in the *Toronto Star* March 13. The article discussed how Nasr is breeding honeybees that are resistant to tracheal mites.

- Prof. Jim Bogart, Zoology, was quoted in a March 19 *Toronto Star* article on frog songs and the ecosystem. Bogart said frogs can sound an alarm with their voices about the existence of ecological health threats.

- The March 24 "Discovery Page" of the *National Post* featured research by University professor emeritus Gil Stelter, History. It discussed Stelter's research on an ironmonger from Guelph who may have been part of a chain of events that ultimately led to the assassination of U.S. President Abraham Lincoln.

- A March 25 article in the *Globe and Mail* focused on research by Profs. Brian Husband, Botany, and Peter Kevan, Environmental Biology. The article explained how the professors are performing paternity tests on apple trees to determine which varieties make the best fathers.

- Research by Prof. Nate Perkins, Landscape Architecture, was highlighted in a March 27 *Toronto Star* article. It mentioned Perkins's research on what people find beautiful and the value trees add to property.

- OVC was the focus of an article in the *Globe and Mail* April 3. The article highlighted the college's high-tech animal medicine, including cancer radiation treatment. Profs. John Tait, Karol Mathews, Cindy Adams and Howard Dobson were interviewed.

- Research by Prof. Doug Larson, Botany, on ancient trees that grow on cliffs was featured in the April issue of *Nature* magazine. The article was written by Larson and researchers Uta Matthew and John Gerrath from U of G's Cliff Ecology Research Group. The same study was the focus of an April 1 article in the *National Post*. The trees are hundreds and, in some cases, more than 1,000 years old, and many are so small they resemble twisted twigs. Larson's research on living rocks was also mentioned in the March 12 edition of *Science* magazine.

CFI Projects Involve Researchers from 11 Departments in Four Colleges

Continued from page 1

- Centre for Animal Technology and Health: Genome Manipulation Laboratory, Prof. Cecil Forsberg, Microbiology (\$1 million);
- Agricultural Plant Biotechnology Centre, Prof. Peter Pauls, Plant Agriculture (\$1.6 million); and
- "Biological Systems for Terrestrial and Space Applications," Prof. Mike Dixon, Plant Agriculture (\$2.4 million).

These projects are among eight U of G proposals invited to move on to further CFI review last fall. A CFI team will visit Guelph May 12 to obtain more information about the three remaining projects before making another announcement early this summer.

In the fall, U of G received its first CFI funding for one of 11 proposals submitted in early 1998. Called "New Technologies for Assessing and Enhancing Agroecosystems," that project is headed by Prof. Terry Gillespie, chair of the Department of Land Resource Science, and involves 25 faculty from 10 departments.

The newly funded projects will involve researchers from 11 departments in four colleges across campus, as well as faculty at Guelph's affiliated agricultural colleges and research stations.

These projects fall under the CFI's Institutional Innovation Fund for initiatives requesting more than \$350,000. In last week's announcement, 23 Canadian institutions, including 10 Ontario universities, received a total of \$124.4 million in such funding.

Including funding under its two other investment categories, CFI will provide a total of \$131.8 million during this funding round to support 78 infrastructure projects in universities and research institutions across the country.

"Obviously I'm pleased," says Evans. "We don't see this kind of money spread around campus very often. It's the first time since I came back to Canada in 1987 that I've seen this money start to appear in Canada's universities."

Three of the four projects approved last week relate to U of G's new Food System Biotechnology Centre, which was created last fall with \$6 million from the ORDCF. Explaining that the latter award resulted from a recent provincial competition, Hallett says last week's federal funding is to be matched separately by provincial ORDCF funds earmarked for this purpose.

GENES TO PROTEINS: ADVANCED MACROMOLECULAR ANALYSIS

Armed with new CFI funding, U of G will buy and upgrade sophisticated equipment used in probing genes and proteins studied by geneticists and biologists and by researchers in agricultural and veterinary sciences.

Evans says the CFI funding will be used to upgrade existing microscopes and DNA sequencing equipment. It will also pay for a computer network used in modelling proteins.

"With a thrust into genomics and analysis of proteins on a massive scale, we needed more advanced computer power," he says.

Central to the project is a proposed DNA array/scanner. Described in the CFI application as the "tool of choice" for examining changes in gene expression patterns, the arrayer will allow researchers to make "DNA chips" containing up to 10,000 DNA samples at a time used in analysing the effects of pathogens and environmental substances on plant and animal genes.

Many of these applications will involve members of U of G's new Food System Biotechnology Centre. Researchers in Laboratory Services' animal health division and Guelph's proposed Food Institute also hope to use the device for microbiological diagnostics.

The new equipment will be operated in facilities

that are jointly managed by the College of Biological Science and Lab Services.

"Genomics and proteinomics are the future — taking information from sequences and learning about organisms," says Evans, who became project leader after former department chair Prof. Steven Rothstein began a leave of absence last fall. "The point of the whole proposal was to bring in new equipment or upgrade facilities that are essential for this type of research."

CENTRE FOR ANIMAL TECHNOLOGY AND HEALTH: GENOME MANIPULATION LABORATORY

With \$1 million in CFI funding — and matching funding from the ORDCF and University partners — U of G researchers will establish an unparalleled regional facility for generating novel strains of livestock through transgenics and cloning.

Forsberg says he expects the Genome Manipulation Laboratory to be built on two floors of the Animal Science and Nutrition Building within about a year.

The facility will be used by 12 core faculty as well as another 16 researchers from three colleges across campus, says Forsberg. Among the major users will be new faculty, post-doctoral fellows and technicians to be hired with ORDCF funding already earmarked for Guelph's Food System Biotechnology Centre.

Using funding from the ORDCF expected to match the new CFI award, researchers also plan to renovate the Elora Dairy, the Ponsonby Multispecies Experimental Station and the Arkell Swine Unit.

"The primary application was for building the Genome Manipulation Laboratory," says Forsberg. "The other component was matching money from the Ontario Challenge Fund. All of that money will go into upgrading the animal facilities here at the University, which are central to the work being done in molecular biology on campus."

The project will also benefit other research programs on campus, he says, "so there will be spinoffs for everyone doing animal research."

About 160 faculty conduct research under projects registered with the animal program of the Ontario Ministry of Agriculture, Food and Rural Affairs.

BIOLOGICAL SYSTEMS FOR TERRESTRIAL AND SPACE APPLICATIONS

With CFI funding of \$2.4 million plus industry and in-kind contributions, this project has a current combined value of \$4 million over three years, with additional support from other sources anticipated.

U of G will use the funds to improve research infrastructure in controlled environments related to space science, terrestrial applications and technology transfer. The project will involve the construction of a 600-square-metre annex to the plant growth facilities — part of the Bovey complex — to house nine variable-pressure plant growth chambers and associated equipment. The research objectives include:

- analysis of the contributions of plants to "life support" in a sealed environment;
- influence of plants on atmospheric quality;
- investigations of potential use of plants for phytoremediation of heavy-metal-contaminated media;
- physiological response of salt-tolerant and salt-accumulating plants for the bioremediation of nutrient recirculating solutions; and
- investigations of potential use of plants for phytoremediation of metal stress of plants capable of hyper-accumulating metals.

The research program has commercial potential through the creation of genetically transformed plants, genetically transformed microbes and biofilters for enhancing indoor air quality. Four primary industrial sectors will benefit from the program — controlled-environment agriculture/greenhouse production; advanced technologies in life support for crewed space missions; advanced technologies for bioremediation of water, soil and indoor air quality; and microbial and environmental biotechnology.

The project will be managed by a nine-member research team headed by Dixon. The project is also supported by the Centre for Research in Earth and Space Technology and is currently under consideration by the ORDCF.

AGRICULTURAL PLANT BIOTECHNOLOGY CENTRE

CFI funding of \$1.6 million will allow U of G to create this centre to consolidate an internationally competitive research and training program in agricultural plant biotechnology. With industry and in-kind support, the centre has a combined value of \$4 million.

It will be located in the Department of Plant Agriculture and will involve 10 faculty, 30 graduate students and 10 post-doctoral researchers.

The CFI funding will be used for renovations to the Crop Science Building, equipment for common laboratories and specialized equipment purchases. Renovations include a doubling in capacity of the transgenic greenhouse to provide 16 independent zones, updating growth rooms and laboratories to accommodate increased research activity, and creating four common instrument labs to perform basic procedures in plant biotechnology. These procedures include growing plants in vitro for selection and plant transformation, and extracting and characterizing plant DNA.

Common rooms with shared equipment will free up lab space, eliminate duplication, decrease service costs to research programs, enhance scientific productivity and lead to greater collaboration among researchers, says Pauls.

New equipment to be purchased includes an ultracentrifuge and rotors, fluorescence spectrometer, scintillation counter, protoplast electroporation apparatus, isoprime electrophoresis unit, DNA extraction apparatus, capillary electrophoresis DNA fragment analyser, inverted microscope and digital camera, particle gun and video-conferencing equipment.

The Agricultural Plant Biotechnology Centre will enhance the goals of the Food System Biotechnology Centre.

BY ANDREW VOWLES
AND MARGARET BOYD

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Hallett: U of G's 'Research Partnership Builder'

U of G's new assistant vice-president (research infrastructure programs) will orchestrate collaboration on and off campus

SINCE FEBRUARY, Prof. Ross Hallett's letterhead has identified him as U of G's assistant vice-president (research infrastructure programs). His recent two-year appointment makes the longtime Guelph physics professor primarily responsible for co-ordinating U of G's funding submissions to both the Canada Foundation for Innovation (CFI) and the Ontario Research and Development Challenge Fund (ORDCF).

"Research partnership builder" is the more informal title Hallett would pencil in to describe his responsibilities until Dec. 31, 2000. Along with other members of the University's ORDCF/CFI core group, he is shouldering the job of bringing together faculty from across campus — as well as businesses and other external organizations — in partnerships intended to attract research funding from these programs and, not incidentally, to establish Guelph as a research powerhouse in several areas.

"We have to put people together and start thinking along complementary lines," says Hallett, pointing to U of G's Food System Biotechnology Centre, which will bring together some 70 researchers from 11 departments along with 31 companies in a venture that has garnered \$6 million from the ORDCF last fall.

Besides helping to consummate that partnership, Hallett has played an integral role in other recent successes:

- U of G researchers learned last week they will receive almost \$5.4 million in CFI funding for four projects — a total that might balloon to \$13.5 million with provincial and institutional funding (see story on page 1).

- That announcement represents Guelph's second infusion of funding under CFI's Institutional Innovation Fund for projects worth more than \$350,000. Last fall, U of G learned that CFI had approved "New Technologies for Assessing and Enhancing Agroecosystems," a project that involves 25 faculty from 10 departments.

- Also last fall, four projects involving 11 U of G researchers were approved for almost \$500,000 under CFI's New Opportunities program aimed at young researchers.

Wayne Marsh, director of research services for the Office of Research, applauds Hallett's appointment. "These are very large, time-consuming proposals to put together," says Marsh. "His appointment is a reflection of the role he's played so far and demonstrates that the University is serious about the CFI and ORDCF programs."

Hallett says his new role is a natural progression from his administrative and research interests during his three decades at Guelph. Among his administrative functions, he has chaired the Biophysics Interdepartmental Group since 1996, has served on both the Board of Undergraduate Studies and the Senate Committee on University Planning, and was acting dean of the College of Physical and Engineering Science in 1990. In his laboratory, he uses light scattering and neutron scattering as well as fluorescent probe techniques to analyse particle size and structure.

Hallett had already been working on combining U of G's strengths in advanced analysis across the sciences when Ottawa and Queen's Park announced creation of their respective funds. "We felt we had excellent peo-



Prof. Ross Hallett

ple and potential, but they needed to work together," he says.

Prof. Larry Milligan, vice-president (research), lauds Hallett's efforts in orchestrating partnerships among researchers over the past year. "He's tremendously good at working with the research community and building new bridges that result in greater strength and better proposals," says Milligan.

Hallett notes that both the CFI and ORDCF are intended in part to rebuild Ontario universities, whose research infrastructure has been threatened by successive cuts to post-secondary education. "It's institution-building, and that's really exciting," he says.

Besides Hallett and Marsh, the core group includes Jim Pettit, acting director of Laboratory Services; Ralph Shaw, senior adviser with the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) research programs; Prof. Marc Le Maguer, executive director of the U of G/OMAFRA research program; Connie Hearty, director of the Business Development Office; and Prof. Carlton Gyles, Pathobiology.

They are now preparing submis-

sions for other U of G projects. One is a proposed Food Institute to bring together Guelph's strengths in studies of processing and packaging of foods and soft materials, functional foods, nutraceuticals and nutrition, and food safety. Another proposal in the aquatic sciences would involve 50 faculty from at least three colleges, centred around the Hagen Aquablab.

Hallett says the funding programs and his appointment reflect a new model of how governments pay for university research infrastructure — and how universities obtain that funding. Key to that model are partnerships. Unlike yesterday's focus on individual or small-group applications to the federal granting agencies, researchers must now consider collaborative ventures involving departments and colleges around campus as well as businesses and other external organizations, he says.

Noting that federal granting councils have traditionally adopted a long-term view of proposed research projects, Hallett says that "normally, peer review judges the excellence and quality of the research and is not so concerned about the impact on the economy or the private sector. The Challenge Fund wants to invest in areas where the impact will be more direct, to the point where the private-sector partners are able to see a return and are willing to invest."

That message was delivered directly to U of G last month when ORDCF chair Cal Stiller visited campus with Ken Knox, deputy minister of the Ontario Ministry of Environment, Science and Technology. The pair held a day-long series of information meetings at Guelph March 23, the first of nine planned visits to

Ontario universities to promote the provincial program.

Guelph faculty, staff and students took advantage of the visit to express concerns about the programs. Reflecting those concerns, Hallett says it's important to balance the applied research programs funded by the CFI and the ORDCF with the kind of fundamental inquiry traditionally supported by granting agencies. Echoing Stiller's response to one pointed question about the longevity of the provincial program, which will run for only 10 years, he says these are "bridging" programs that cannot address the more long-term problem of funding for university research. And pointing to the involvement of a biochemist interested in the social effects of new technology in Guelph's Food System Biotechnology Centre, he emphasizes that the new funding model must not exclude the humanities and social sciences.

Hallett says he drew encouragement from Knox's mention of provincial plans to privatize operations of municipalities and public utilities, making them eligible ORDCF partners. He plans to revisit several prospective local partners, particularly with a proposal for a waste-management project.

Faculty also sought assurances that Stiller's board will consider projects with smaller partners and that the review process will be fair.

Explaining that the ORDCF aims to boost R&D in Ontario, Knox said that "two out of every three new jobs in Ontario are science- and technology-related." He said a recent report by the Ontario Jobs and Investment Board underlines the importance of investing in education and job training.

BY ANDREW VOWLES

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IS LOVE A KIND OF ADDICTION?

"It doesn't sound romantic to compare love with a drug addiction, but the similarity between both dependencies is striking."

BY GEORGE BUBENIK

WHAT IS LOVE? In human terms, love has been described as an attachment, commitment, intimacy, passion, jealousy and grief on separation. Attachment is a component of most, if not all, definitions of human love, and there are similarities between parent and infant attachment and adult romantic attachment. Attachment is defined as a "selective social and emotional bond." Maintenance of close proximity and voluntary contact with an attachment object are the most common behaviour indices of attachment. As these characteristics are common to animals as well as humans, many investigators have suggested that love and attachment share a common biological substrate.

Last year on Valentine's Day, I discussed the role of pheromones in human courtship on the CBC program *Fresh Air*. Many people were surprised to learn that humans can respond to subconscious signals provided by the hormone-like chemicals produced by body skin glands. These chemicals can then play an important role in our choice of mates during courtship.

This new approach to studies of human behaviour is quite revolutionary. For centuries, humans were considered superior to animals because we can think, reason and decide our future. Animals were labelled "living things" that behave according to preprogrammed instructions inherited from their ancestors and that are incapable of any meaningful cognitive function. Recent studies have discovered a surprising capability of animals to perform cognitive functions (such as learning from experience and even counting up to seven, established recently in monkeys), but a reverse trend, studies of subconscious animal-like behaviour in humans, is gathering speed.

Because most of our behaviour is based on the interaction of various chemicals in the brain, it shouldn't be surprising that human and animal courtship and bonding have a similar biochemical base. There is a remarkable similarity between the powerful effect of bonding, which we humans call "love," and the strong effect of various chemicals, which we often call "drugs." So is love comparable with a drug addiction? Judge for yourself.

Mammals are generally gregarious creatures, often living and reproducing in pairs or in larger groups such as families or troops, which are held together by selective social bonds. Mammalian reproduction requires an intense investment of time and energy to raise an infant from pregnancy through lactation and weaning toward maturity and separation. Humans have a long period of parental care, so pair bonding is important to protect the infants and provide them with the necessities of life. Nonprocreational mating in apes and humans may have developed to reinforce the pair bonding by specific neuroendocrine mechanisms. In addition, the attachment or bonding between the infant and the mother is essential for proper emotional development of the offspring.

Studies on monkeys and humans indicate that babies that can't bond with their mothers often become incapable of successfully bonding with their own offspring. In primates and humans, the absence of adequate maternal care has been associated with growth retardation, social withdrawal and inhibition of verbal communications.

It's long been known that in mammals, a strong bonding is associated with birth, lactation and sexual interactions. In addition, a sympathetic arousal, such as the one experienced during stress, increases the capacity for social bonding. So why can we compare love and bonding with an addiction?

For ages, people have been falling madly in love. Empires have been fought over love, and countless men and women have lost their lives while pursuing the objects of their love. Some people's affection is so profound that others consider their love to be an obsession or addiction. One well-known case of love obsession is the Saskatchewan farmer who pursued singer Anne Murray relentlessly for years.

Similar to drug addicts, some people remain in a destructive or abusive relationship, unable to break out and often even pre-



venting police from charging a brutal mate. Most of us have experienced the traumatic breakup of a love relationship, and many of the symptoms we felt could be compared with those of the withdrawal period observed in drug addicts. It shouldn't surprise anyone therefore that this comparison has been scientifically proven; love and bonding indeed have a biochemical base that can be compared with drug addiction.

It doesn't sound romantic to compare love with a drug addiction, but the similarity between both dependencies is striking. It's well known that people addicted to one substance are often addicted to another. A few years ago, a number of addictions, including addiction to nicotine, heroin, alcohol, cocaine and gambling and even cravings for sex and food, were placed under the broad umbrella term "reward deficiency syndrome."

Neuroendocrinological and psychopharmacological studies have revealed that a proper balance of various brain chemicals such as dopamine, noradrenaline, serotonin and GABA brings a feeling of well-being. A chemical imbalance in brain pleasure centres, however, will bring feelings of anxiety, anger and craving. These centres reward animals and humans for essential behaviours that lead to the maintenance of body functions and successful reproduction. We therefore experience pleasure from eating food and having sex.

To secure propagation of a species, the ultimate pleasure reward is offered during sex. Similar pleasure reward after stimulation has been observed when an area in the brain called the medial hypothalamus has been electrically stimulated. In experiments on rats, animals with electrodes placed in the area responsible for emotion pushed the lever controlling the electrical stimulation as often as 5,000 times an hour, to the exclusion of everything else except sleep. These rats were truly addicted to their pleasures, similar to heroin addicts.

That this electrical stimulation has a biochemical transducer was discovered 15 years ago. It was found that a neuronal circuit deep in the brain is involved in the process of rewarding people taking drugs. The principal neurotransmitter of that process is dopamine, but several other neurotransmitters and neuropeptides such as serotonin, GABA and enkephalins are also involved. It's the deficiency in dopamine D₂ receptors in the brain that increases the craving for nicotine, alcohol or cocaine. These drugs are known to promote the release of dopamine, which is part of the reward cascade. It begins with the release of the "feel-good hormone" serotonin from the hypothalamus. This induces the secretion of neuropeptide serotonin from the ventral tegmental region. Another hormone, enkephalin, produced during excitement, inhibits the activity of neurons producing the inhibitory neurotransmitter GABA. That enables the dopamine neurons to release dopamine in the nucleus accumbens. Dopamine action on the D₂ receptors then induces the pleasurable feeling.

An interesting sideline of dopamine action is in the centre of emotions and the centre of memory. So not only are we rewarded with pleasures, but we can also remember them well. Thus, the various addictive substances (including certain foods such as chocolate) increase the production of serotonin or dopamine, which in turn reinforces the need to take more drugs.

If heroin or alcohol stimulates dopamine production, what chemical is the ultimate stimulant involved in the bonding we call love? Recent animal studies performed in female voles indicate that it is the neuropeptide oxytocin and perhaps its cousin vasopressin, the hormones discovered first in the posterior pituitary. The studies of Thomas Insel and his colleagues at Emory University in Atlanta revealed that oxytocin works in tandem with dopamine via the pleasure centres. Mating in monogamous voles, which usually leads to lifetime bonding, was found to dramatically increase the amount of dopamine in the nucleus accumbens of females, an effect that lasted for several hours. Conversely, a similar bonding, this time without a mating, was achieved by a brain injection of dopamine. Finally, an injection of dopamine blocker was found to inhibit the usual bonding observed in voles after mating. Similar to dopamine, an injection of oxytocin into brain ventricles mimicked the effect of mating, inducing an enduring partnership.

Use of an oxytocin receptor blocker, antibodies to oxytocin or lesions of oxytocin-producing neurons abolished the positive effect mating had on the pair bonding. Oxytocin injected into virgin rats initiated maternal behaviour in 30 minutes or less. Oxytocin receptors are localized in many areas of the brain, particularly in the hypothalamus and the limbic systems, the centres of reward and emotions.

It has therefore been speculated that mating induces a release of oxytocin, which in turn stimulates the release of dopamine. That animals don't forget their mates may be caused by vasopressin, which in some studies has been linked to memory processes. Vasopressin, which may act on hippocampus and olfactory areas, was found to be released in the brain at the time of vole bonding. In addition, vasopressin — but not oxytocin — has been associated with antagonistic and territorial behaviour called mate guarding, which in human terms can be called jealousy.

One could speculate, therefore, that too much vasopressin released in the brain of Othello caused him to strangle Desdemona, whereas too much oxytocin could be blamed for the death of Romeo and Juliet.

If oxytocin is the "love hormone," what are the known triggers of its secretion? Interestingly, it has been known for several decades that oxytocin, adrenaline and endorphins are released during parturition. During labour, oxytocin causes a powerful contraction of smooth muscles of the uterus. Oxytocin is also released during breast-feeding. Another surge of oxytocin in blood has been reported during sexual arousal in humans. Thus, in all three phases of reproduction — mating, parturition and nursing — oxytocin initiates the stimulation in the dopamine- and endorphin-dependent reward pathway and creates a quasi-drug-induced high, which is then reinforced with subsequent repetition of the action.

In addition to being the "love hormone," oxytocin has been found to have pain-killing properties and mildly sedative effects. It also reduces blood pressure significantly and can be considered a natural anti-stress hormone. No wonder recent studies have found that people who engage in sex about twice a week live longer than those who abstain.

Most recently, scientists have established that the capacity for pair bonding has a genetic base. A transfer of genes from pair-bonded prairie voles into a laboratory mouse caused the normally promiscuous species to pair bond. So if the reverse is true, perhaps U.S. President Bill Clinton can blame his troubles on the unfortunate genes he inherited from his forefathers.

Prof. George Bubenik is a faculty member in the Department of Zoology.

GETTING ORIENTED

New chair will navigate the Department of Agricultural Economics and Business into the future

BY NATASHA MARKO

FOR PROF. KEVIN PARTON, chairing a department is a bit like orienteering, his favourite sport. Both pursuits challenge participants to use their skills to find their way through unfamiliar territory. Both can sometimes leave you scratching your head, trying to navigate a clear path to daylight. And both require leadership to succeed.

That's the way Parton is approaching his appointment as the new chair of OAC's Department of Agricultural Economics and Business. He has been distinguished throughout his career as a leader who takes groups on new missions and solves problems that have eluded others. Now he gets to apply his skills in a Canadian context.

"I'm a leader, not a manager," says the 47-year-old native of Middlesbrough in North Yorkshire, England. "A good manager uses current resources to work efficiently, while a good leader takes an organization into the future."

That explains why, after an extensive search, Parton was chosen to lead the 26-member department into the new millennium, at a time when important decisions are being made about the fate of global agricultural trade.

Parton has gained more than 20 years of experience in agricultural economics since receiving his PhD in that subject in 1978 from the University of New England in Australia. The bulk of his career has been spent as a lecturer and researcher in agricultural economics and business management at New England and at the University of Newcastle in the United Kingdom.

His most recent position was director of New England's Centre for Health Research and Development. The centre was developed in 1996 when a health studies department of a college of education was taken over by the University of New England.



PHOTO BY MARTIN SCHWABE

He took the position because the centre needed someone who could establish a research program.

When the centre was formed, its target was to increase the research publication rate by 30 per cent a year. Under Parton's leadership, this goal was achieved in just two years. And by the time he left the centre to come to Guelph, its research funding had increased from virtually nothing to \$250,000 a year.

"We successfully introduced a research culture to the centre," says Parton. "The position was training ground for this chair appointment. I gained valuable people skills."

His vision for the Department of Agricultural Economics and Business is to bridge the department's two areas of focus — agricultural economics and policy, and agricultural business development. Agricultural economics is the traditional area of the department's research and will play an important role in the

future. It is more detached than they are here, he says. That means there is less understanding of the industry and less opportunity and support for research. But Guelph's close working association with the Ontario Ministry of Agriculture, Food and Rural Affairs and industry means Parton will be able to use his expertise and abilities to lead agricultural research that is strongly linked to the province's agricultural industry.

"It's a very exciting time to be in agricultural economics," says Parton, "and I'm enthused about the expertise in the department. The researchers have skills that bring insight into the future of agriculture. There is a substantial demand for imaginative university departments like this one."

When Parton is not immersed in agricultural research, he can often be found orienteering with his wife, Bev, and four sons, Colin, Matthew, Liam and Daniel.

Seniors Enlisted to Help Design Nutrition Program

Researchers recognize that seniors want to be involved in their health-care choices

MORE THAN JUST living longer, today's seniors want more choice and control in their lives than previous generations had, says Prof. Heather Keller, Family Relations and Applied Nutrition. So when she was awarded \$46,000 from the Danone Institute of Canada in December to design a nutrition education program for seniors, Keller enlisted the help of members of the Evergreen Seniors Centre in Guelph.

Along with Evergreen program supervisor Leslie Snell, adjunct professor Stephanie Ounpuu and nutrition education specialist Margaret Hedley, Keller hopes Evergreen will be the first stop on a nationwide journey to make nutrition a mainstay of seniors' health care.

As a first step, she took a novel approach — asking the seniors to help design the one-year program.

"Previous efforts at nutrition education have been top down, whereas our approach is bottom up," she says. "In part, we adopted this innovative approach because there is a new type of senior today, one who wants to be involved in his or her own health-care choices. Seniors like to have some control. They know how to solve their problems; they just want a little help doing it."

In her career to date, Keller has tried to get the message out that there is a critical distinction between meals and nutrition. She points out that some seniors may neglect nutritional staples such as fruits and vegetables.

"Some seniors also find cooking a challenge — not physically, but because many are on their own, single, and they lack the motivation to cook for just one person."

The program began with a survey of 400 Evergreen members to iden-

tify nutrition problems. The planning committee of researchers and seniors then looked at the results. Keller says the feedback from the seniors included some "wonderful" recommendations on how these problems might be solved, including group cooking classes for singles living on their own and a community kitchen from which seniors could take meals with them and freeze them for later use.

Keller is also reminded of something she's known for years — that seniors these days are not interested in hype about their health. "They don't believe the messages in paid advertising or miracle cures. They want solid, independent research or contacts who will tell them the truth about vitamins or alternative medicines, and someone like a dietitian who can talk to them straight about nutrition."

She would like to see a registered

dietitian made available to Evergreen members to answer questions and help people make healthy choices.

At the same time, an earlier and ongoing research project is beginning to pay dividends. Back in 1997, Keller began investigating a standardized screening assessment system that could measure critical factors and provide warning signs of when a senior was at high risk. Called SCREEN (Seniors in the Community Risk Evaluation for Eating and Nutrition), she trademarked the tool and its name in February. Since then, a small ad in a nutrition magazine has resulted in more than 40 requests for the tool nationwide.

The tool uses multiple-choice questions to provide greater accuracy, and Keller believes it will allow health-care service providers who might not have formal nutrition

training to identify problems quickly, or at least to give a heads-up that a patient should be referred to a dietitian.

With a companion booklet on the way, she envisions the quiz could be filled out by seniors in a doctor's waiting room, then handed to the physician prior to an exam.

"The aim is to incorporate nutrition and nutrition education into the mainstream services of health-care providers," she says. "A lot of service providers know nutrition is important, but they don't know the questions they should be asking. SCREEN asks the questions for them."

Both SCREEN and lessons from the Evergreen research will be incorporated into SHINE, a much bigger project, the first phase of which involved a baseline health survey of several hundred seniors in the Hamilton area last fall.

BY ALEXANDER WOOLEY

Quality Foundations Must Be Restored, Says COU

Continued from page 1

with increased enrolments, means Ontario universities will have to hire 11,000 to 13,000 new faculty over the next 10 years.

Because universities across North America will be in a similar predicament, competition for faculty will be fierce. In fact, it will be necessary to begin hiring now because of the two- to three-year intervals in normal hirings, and investment must be made in increasing graduate enrolment to create a "pipeline" for future faculty.

"From our own perspective here at Guelph — and from COU's perspective province-wide — the message we are giving government is that we must restore our quality foundations as part of any consideration of increasing enrolment significantly," says Rozanski, who also sits on COU's working group on university capacity, which is meeting with government to seek a solution to the quality and growth issues.

"When you recognize that Guelph and other Ontario universities are at or near capacity and have been underfunded for years, it's clear that a major reinvestment is badly

needed," he says. "Of course, we want to work with government to resolve this severe problem, and we want to respond to parents' and students' concerns, but we can only do so in a responsible way with quality considerations foremost."

Other key trends noted in the reports include a 21-per-cent higher student/faculty ratio in Ontario than the national average, decaying buildings on Ontario campuses and a deferred-maintenance bill of more than \$600 million, and inadequate funding of student assistance and research infrastructure, which is proving detrimental to Ontario's competitiveness.

COU estimates that to address these issues, the province will need to increase its annual investment in operating budgets, capital and student assistance to Ontario universities by between \$1.2 billion and \$1.8 billion.

Ian Clark, president and CEO of COU, noted in a press release: "The projected costs are intended to be illustrative rather than definitive, but they provide an idea of the magni-

tude of the challenge before us."

Being able to meet the needs of future students becomes all the more vital in light of the results of the Angus Reid survey of 1,000 Ontario residents, says COU. The survey found that most Ontarians think a university degree offers the greatest chance for career growth and increased lifetime earnings.

Ninety per cent of the survey respondents agreed that a well-educated workforce improves a province's economic prospects and international competitiveness. Eighty-eight per cent agreed that increased government funding of universities should be a priority. Ninety-six per cent agreed that increasing funding for university research is a priority.

Sixty-five per cent of survey respondents believed that increasing class size reduces the quality of learning for students. Fifty-seven per cent of those polled said that increased government funding of universities is a preferred option to help students and Ontario remain competitive. About 60 per cent thought that increasing the participation of students in research and exposing students to research is also key.

"Ontarians are telling us the kind of education they want for their children," says Rozanski. "They want high-quality learning experiences, a complete integrated education that prepares a student for career and life, and an emphasis on giving students an opportunity to do research in well-equipped facilities with faculty who are dedicated to teaching and research. Most important, the public understands that government must invest in universities to maintain quality and accessibility. We know you can't get there without renewed levels of public funding. We have to pass along that message to the government — that infrastructure, research opportunities, new technology, class sizes and financial aid all require a significant reinvestment of funds."

A second survey of 31 business leaders found they make a clear link between education and economic well-being. All either strongly agreed (94 per cent) or somewhat agreed (six per cent) with the statement that

a well-educated workforce greatly improves a province's economic prospects and international competitiveness. Seventy-four per cent indicated that career growth and continual learning skills are best acquired through a degree.

University education is seen by 63 per cent of Ontarians as the "best chance" to earn more money. Statistics Canada findings routinely show that the higher the level of education, the higher the average earnings of an individual at each age after leaving school, and the higher the participation rate in the workforce.

"From a Guelph perspective, these results show that our two prime strategic directions, learner-centredness and research-intensiveness, are very much in keeping with the priorities of Ontarians," says Rozanski.

"But beyond the important economic and employment benefits of a degree, a university education offers a wonderful opportunity to acquire and create knowledge, foster innovation and discovery and grow intellectually. These qualities can't be measured in earning power because they are invaluable. They lead to engaged, informed citizens who can help shape society, who can critically examine and comment on key social issues, who can make positive contributions to the world. The innovation and knowledge that emerge from universities directly correlate to our social and economic well-being and the quality of our lives."

Other survey results indicate, paradoxically, that although the majority of those surveyed favour increased public funding of universities, few Ontarians recognize the dire fiscal situation Ontario universities currently face. Only 14 per cent of those surveyed disagreed with the statement: "I think Ontario universities generally receive more government funding than universities in the United States."

Only 15 per cent thought that Ontario's universities are funded below the level of other provinces. Ontario currently ranks 10th out of 10 provinces in per capita funding of its universities and 58th out of 60 jurisdictions, including the United States. When informed of the true fi-

nancial conditions of Ontario universities, survey respondents agreed that increasing government funding is a priority.

COU commissioned the surveys to determine the public's views on what constitutes a responsive educational community, with the aim of ensuring that the right opportunities are available for students, opportunities that also guarantee the economic future of the province.

BY ALEXANDER WOOLLEY

Key Conclusions from Angus Reid Public Opinion Research

Ontarians realize the key role that higher education will play in the new economy. They strongly support the increase of both access to and quality of post-secondary education.

Ontarians support the proposition that qualified students should be able to attend university.

Ontarians assign a high priority to dealing with the "double cohort" challenge.

The key motivation for pursuing post-secondary education is improving one's short- and long-term employment prospects.

Colleges and trade schools are seen as most useful for preparing students for immediate employment. Ontarians realize that university graduates have higher earnings in the long run, but are surprised that university graduates find well-paying jobs as quickly as graduates of colleges and trade schools.

Both the greater use of new technology and increasing the number of faculty were seen as important in maintaining quality education for the increased number of students.

Key Conclusions from PricewaterhouseCoopers

There are projected to be about 72,000 (31-per-cent increase) more students by 2004/05 and 88,900 more by 2010/11 (40-per-cent increase) attending Ontario universities.

Ontario universities are already close to their physical capacity and in a stretched position on operating resources:

- Student/faculty ratios in Ontario are more than 20 per cent higher than at universities in the nine other provinces.
- Physical infrastructure is badly deteriorated with deferred-maintenance costs at more than \$600 million and projected to reach \$1.3 billion by 2010 if not reversed.
- Support for the indirect costs of research is only a fraction of that available in competing U.S. jurisdictions.

To maintain a constant 1:16 student/faculty ratio (the average in the other nine provinces), 3,800 additional faculty will be needed by 2004/05 and another 4,500 by 2010/11. This is on top of the need to replace retiring faculty or those needed to meet increased enrolment. That total is 11,000 to 13,000.

The wave of retirements throughout North America will significantly increase competition for quality faculty in the next three to five years. Given the two- to three-year lead time required to recruit faculty, planning for increased hiring should begin in 1999/2000.

The universities' current financial position (ratio of current assets to current liabilities) prevents them from undertaking significant investment without government support.



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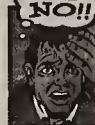
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Projects Build University, Community Relationships

Continued from page 1

SSHRC's new initiatives program, which has a mandate to support innovative projects that promote the changing directions of research and the evolution of disciplines," he says. "This early recognition of the Centre for Cultural Studies reinforces the University's commitment to linking collaborative research, graduate and undergraduate work and community priorities."

Bold echoes that sentiment. "Guelph has the only research centre for cultural studies in Canada that I know of," she says. "Our initiatives are developing partnerships between faculty and students in multiple disciplines and in community organizations, and they are attracting attention not only from SSHRC, but from other academics as well."

When Bold spoke last year at the annual meeting of the Humanities and Social Sciences Federation of Canada, she found that U of G's definition of cultural studies was unusual in its interpretation of cross-disciplinary and community collaboration and in its status as a University-wide research centre. In academia, there are all sorts of research links with community groups, she says, but most are built on a consultative model. CCS is trying to draw on community experience right from the beginning of a project, she says.

"We're looking for new ways of

asking questions, new ways of fashioning programs and learning from each other to make humanities teaching and research more relevant."

Marianne's Park is dedicated to the memory of Marianne Goulden, a resident, volunteer and eventual staff member at Guelph-Wellington Women in Crisis (WIC) who was murdered by her partner in 1992. An earlier SSHRC strategic partnership grant helped launch a study of the park's meaning in the community.

group at CCS—Prof. Belinda Leach, Sociology and Anthropology; Bold and Prof. Ric Knowles, Literatures and Performance Studies in English; Sabina Chatterjee, a U of G women's studies graduate and WIC staff member; and Jodie McConnell, acting director of the Human Rights and Equity Office.

For the community workers, the SSHRC grant provides new recognition for the mandate of their organization. WIC executive director Joanne Page says there is an ongoing

artistic creativity and community input in educational processes. Other members of the research team are Prof. Al Lauzon, Rural Extension Studies; Profs. Suzy Lake and Howard Spring, Fine Art and Music; Bold and Knowles; and Prof. Daniel Fischlin, Literatures and Performance Studies in English. The Macdonald Stewart Art Centre and Guelph Jazz Festival are partners.

Building on an initiative launched at last September's festival, the project will increase its focus on

colloquium "Art Practice and Social Change" held at the Macdonald Stewart Art Centre. Cultural studies partners across campus worked with community groups to present a program that ranged from the opening of a visual art exhibit to discussions on negotiating art and audience. The project also included the launch of a video on banking practices that was developed by a local business, ED Video, with support from the Canada Council for the Arts.

Each new endeavour enlarges the partnership between the University and the community, says Bold. "We're building a relationship based on doing, not just talking, and we're trying to ensure that each step leads to concrete outcomes."

Another important part of the Heble project is curriculum development. A cultural studies pedagogical group started in 1996 has members from across campus committed to creative involvement in developing new humanities courses at the MA and undergraduate levels. Heble says the academics began by inviting community-based organizations to be part of the pedagogical group and quickly learned there is much support for bringing together theory and practice in humanities courses.

Group members are developing a new undergraduate course tentatively called "Cultural Studies: The Classroom and the Public Sphere," in which students will map social justice work in their local community, learn how to contribute to that work and begin to theorize about the practice of community work from a cultural studies perspective.

This initiative has also received support from a Teaching Support Services instructional development grant.

BY MARY DICKIESON

"Cultural studies is about breaking down borders between the academic sphere and the community, and that's what this project does."

The new funding will be used to produce archival and electronic resources that document how the park was created, how it is used by the community and the role it plays in WIC efforts to increase awareness of violence against women. The grant will also support the production of media and government communications and allow more student involvement through the hiring of research assistants, leading to academic publications about memorializing and the relationship between memory and social change.

Participants in the project include WIC staff and volunteers and members of the cultural memory

struggle in the women's movement to raise awareness of family violence.

"I think it's wonderful that we're going to have an opportunity to explore the politics of memorializing violence against women," she says.

Like the development of Marianne's Park itself, Page says this new research effort is a creative way to look at how this community and others are focusing on the issue of violence against women and children. "Marianne's Park was a grass-roots feminist initiative that has great symbolic importance locally and serves as a place for women to organize politically," she says.

Reconstructing the history of the park and documenting its continuing importance to the community may help groups like WIC in their efforts to influence public policies and ultimately increase support for the victims and the volunteers concerned about family violence.

The second SSHRC-funded project is headed by Prof. Ajay Heble, Literatures and Performance Studies in English, and has several initiatives under way to explore the benefits of

the educational colloquium that was presented in conjunction with musical performances. Possible outcomes include opportunities for musicians to improvise, workshops that discuss the role of creative collaboration across performance categories, and joint programming events that combine jazz performance with visual art installations.

One of the most exciting elements of the project, says Heble, is the opportunity for him and other faculty to bring their academic and community work together.

"Cultural studies is about breaking down borders between the academic sphere and the community," he says, "and that's what this project does."

He hopes the SSHRC grant will stimulate greater appreciation of the community-based work of Guelph faculty and students and a re-evaluation of the way research in the arts and humanities serves a knowledge-based economy.

The SSHRC recognition is expected to encourage more collaborative projects like the February

Community Input Sought on Upcoming Internal Reviews

Goal is to evaluate departmental operations

THE SENATE COMMITTEE on Internal Review (SCIR) seeks input from members of the University community as it continues its task of reviewing all academic departments and undergraduate programs at Guelph.

This task, carried out in a seven-year cycle, is being conducted partly as a requirement mandated by the provincial government and partly as an outcome of Senate deliberations at U of G, says SCIR chair Prof. Richard Barham, Family Relations and Applied Nutrition.

The focus of these reviews is primarily directed at assessing the quality of undergraduate offerings, he says, but at Senate's direction, the committee is also considering the wider operations of departments and programs.

The broad purposes of the reviews are twofold—to assist departments as they develop and improve the quality of what they do, and to meet the provincially mandated government requirement for accountability, says Barham. The more immediate goal of the reviews is to evaluate the department's operations to identify:

- current strengths and weaknesses of the department's activities, particularly its undergraduate activity within its own specializations and in regard to core, service and elective offerings for "other" students and programs;
- immediate improvements that could be made; and
- future opportunities for quality enhancement.

Evaluations are next planned for the departments of Consumer Studies, History, Philosophy, Physics and Sociology and Anthropology, the School of Hotel and Food Administration and the B.Comm. program. SCIR will also be considering accreditation reports that encompass the School of Engineering and all departments in OAC.

The SCIR subcommittees established for each review welcome comments and input from all members of the University community—students, staff, faculty, program committees, alumni, employers of graduates and friends of the University. Comments should be submitted in writing within the next four weeks to Barham through the Senate Office on Level 4 of the University Centre.

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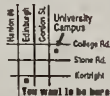
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Facing the Facts About Y2K

CCS Web site offers compliance assessment of various software packages

THERE'S BEEN a lot of talk about Y2K in the news media in recent months, covering everything from the history of the millennium bug to what emergency services are doing to prepare for Jan. 1, 2000. If you're a personal computer user at U of G, there are some key facts you need to know, says Ron Elmslie, director of Computing and Communications Services (CCS).

For an up-to-date Y2K compliance assessment of the software packages you're using, the CCS Y2K Web site www.uoguelph.ca/ccs/y2k offers convenient Y2K software testing procedures by clicking on the "software inventory" link in the navigation bar. These procedures provide a detailed breakdown consisting of the Y2K rating, support status, manufacturer Y2K information, what you need to do, relevant URLs and CCS comments.

Personal computers have been identified as the biggest potential problem on campus by the University's Year 2000 Committee, says Elmslie. It was recently discovered that a number of campus computers tested for hardware compliance had a Y2K problem.

"A solution that applies to a majority of these computers is to simply reboot your machine in the New Year," he says. "But there are exceptions where this procedure may still not result in your computer accepting the Year 2000 date." To prepare for this "Y2K ready" procedure, visit the Y2K Web site, he says.

To be certain of the Y2K compliance of the various e-mail and Internet products you use, Elmslie recommends checking the status of each product, including the release level. He notes that the definition of "compliant" is an application that

has been tested by the manufacturer and meets all Year 2000 requirements set forth by the manufacturer. He stresses the importance of verifying the compliance of your software so you can upgrade if necessary. Statistics from the CCS HELP line for the fall semester reveal that the majority of the University community regularly uses the office suites from Corel and Microsoft.

The accompanying table highlights the Y2K compatibility of popular products, suites and operating systems (OS) that are used frequently on campus. This table represents just a sample of the applications and operating systems available on the Y2K Web site.

For more Y2K information, call Bob Creedy at Ext. 2589.

BY SHAYLA STEEVES
COMPUTING AND
COMMUNICATIONS SERVICES

Products, Suites & OS	Platform	Y2K	Products, Suites & OS	Platform	Y2K
Corel WordPerfect 5.1	DOS	M	Microsoft Office 97	W95	C
Corel WordPerfect 6.1	W3.1x	M	Corel WP Suite 7 (16-bit)	W3.1x	M
Corel WordPerfect 7	W3.1x	C	Corel WP Suite 7 (32-bit)	W95	M
Corel WordPerfect 7	W95	M	Corel WP Suite 8	W95	C
Corel WordPerfect 8	W95	C	Corel WP Suite 8 Professional	W95	C
Corel Quattro Pro 6	W3.1x	M	Microsoft Internet Explorer 3.0xx	W3.1x	M
Corel Quattro Pro 7	W3.1x	C	Microsoft Internet Explorer 4.01	W95	C
Corel Quattro Pro 7	W95	M	Netscape 2.02 & above	W95	C
Corel Quattro Pro 8	W95	C	Netscape Navigator 2.01 & below	W3.1x	N/C
Microsoft Word 5.0	DOS	N/C	Netscape Navigator 2.02 & above	W3.1x/95	C
Microsoft Word 5.5	DOS	M	Netscape Communicator 4.0 & above	W95	C
Microsoft Word 6.0xx	W3.1x	M	MS DOS 5.0	—	M
Microsoft Word 95	W95	C	MS DOS 6.2	—	M
Microsoft Word 97	W95	C	Windows 3.1	—	M
Microsoft Excel 5.0	W3.1x	M	Windows 3.2	—	M
Microsoft Excel 95	W95	C	Windows 95	—	M
Microsoft Excel 97	W95	C	Windows 98	—	C
Microsoft Office 95 Standard	W95	C	Windows for Workgroups	—	M
Microsoft Office 95 Professional	W95	M			

The above information applies only to English versions running on PC platforms and accurately reflects the information currently available from the vendor. Visit the Web site www.uoguelph.ca/ccs/y2k for the latest updates.

C = Compliant M = Compliant with minor issues N/C = Not compliant

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INTEL PENTIUM II 450	\$ 1925.
INTEL PENTIUM III 450	\$ 1999.
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MS Office 97 Pro Edu for Win95	\$ 249.
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CLASSIFIEDS

FOR SALE

Washer, 20-pound capacity, three years old, excellent condition, 763-3669.

1995 Honda Civic CX hatchback, automatic, AM/FM cassette, 46,000 kilometres; medium-sized chest freezer, white, hardly used, Ext. 8596 or send e-mail to tsakamot@uoguelph.ca.

Compost sale, May 1 from 10 a.m. to 3 p.m., in support of Guelph Synchro Swim Team, parking lot at Stone Road and Gordon Street.

Single bed with frame, desk, four-drawer wooden dresser and 18-speed mountain bike, all in good condition, Amy, 826-6889.

FOUND

Woman's wire-rimmed tortoise-shell glasses with chain, found in President's Office area, Ext. 2200.

FOR RENT

Furnished room near campus, private kitchenette, laundry, parking, non-smokers, no pets, available in September, \$325 a month inclusive, leave message at 763-1236.

Furnished coach house, private, open plan with sleeping loft, suitable for professional person or couple, parking, \$700 a month plus gas, available April 10, first and last months' rent required, 821-2103 or send e-mail to danap@uoguelph.ca.

Two-bedroom country home on one-acre lot, finished basement with third bedroom, recently renovated, large organic garden, available

August 1999 for one year, Ann, Ext. 2508 or send e-mail to aclark@plant.uoguelph.ca.

Furnished one-bedroom apartment, private entrance, quiet neighbourhood, laundry, air, parking, suit single non-smoker, no pets, \$450 a month inclusive, references required, 763-2632.

One-bedroom apartment in two-storey house, private entrance, parking, \$600 a month inclusive, see Victor at UC exhibition cooking or call 821-5822 after 7:30 p.m.

Three-bedroom basement apartment, 20-minute walk to campus, close to shopping, separate entrance, parking, laundry, available May 1, Ext. 4018 or 836-6862 after 5 p.m.

Two-bedroom apartment in private home, laundry, cable, central air and vac, two blocks to campus, on bus route, non-smokers, no pets, no parking, Ext. 6528 or 822-2336.

One bedroom available in two-bedroom house, share kitchen and bath, near downtown, on bus route, must like cats, first and last months' rent required, parking, available immediately, \$120 a month inclusive, 763-1316 after 6 p.m.

Four-bedroom older home, modern kitchen, finished basement, family cat, 10 minutes to campus, available May through August, \$1,400 a month plus utilities, 767-1333.

Waterfront cottage on Sauble Beach, private, treed lot, available July 10 to 17 and last two weeks of August, \$880 per week, Ext. 8480.

Furnished apartment, fully equipped, private entrance, parking, air, central vac, suitable for short-term rental, \$795 a month inclusive, Carol, 823-1857.

Four-bedroom home, laundry, appliances, central air and vac, storage, parking, large yard, close to downtown and bus routes, available May 1 to Aug. 31, non-smokers, Heather, Ext. 77934 or send e-mail to hgrant@uoguelph.ca.

Waterfront cottage north of Sauble Beach, two bedrooms, eat-in kitchen, TV, VCR, barbecue, suitable for four, non-smokers, \$450 a week, leave message at 763-1236.

Furnished luxury home, 2½ baths, convenient to campus, parks and Stone Road Mall, suitable for visiting faculty, available September 1999 to May/June 2000, Ext. 2622 or send e-mail to gchapman@msnet.mathstat.uoguelph.ca.

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HAVE FUN WITH HISTORY



The third set of questions in an OAC 125 quiz.

51. When was streetcar service from the city extended to OAC?
52. What precipitated the choice of location for War Memorial Hall?
53. What was *The Librarian*?
54. What was the accidental target for the first and only firing of the cannon on campus?
55. What languages were once required courses at OAC?
56. What two subjects, other than domestic science, were originally taught in Macdonald Institute?
57. What was *Conversazione*?
58. Which governor general opened Johnston Hall in 1932?
59. When were the diploma and degree programs separated into two academic streams?
60. What was the Rose Bowl?
61. What president wrote to Prof. W.H. Day in 1914 expressing concern that \$3.50 was spent on two pencil sharpeners?
62. Who was the first BSA graduate from the four-year course?
63. Why did so many faculty "resign" in 1934?
64. Which president reaffirmed the on-farm use of horses in 1939?
65. Who was the first Rhodes Scholar?
66. Who was the first female BSA graduate?
67. How many people died on campus during the 1918/19 flu epidemic?
68. Where was the cookery school for the Royal Canadian Air Force located during the Second World War?
69. Besides passengers, what did the streetcars deliver to campus?
70. What was Farm and Home Week?
71. When did the MSA program begin?
72. Who were the first three MSA graduates?
73. What university was OAC affiliated with in 1888 for the granting of degrees?
74. Who was the BSA graduate and deputy minister who became acting president in 1945 because of the illness of President Christie?
75. Why were two wells drilled on campus in 1896?

Find the answers in this listing:

The city planned to raise the cost of water — James Mills — Susan Chase — 1920 — Christie — Wm. Garnett — 23 — manual training and nature study — Macdonald Hall — the Bullring — Lord Athlone — English, Greek & Latin — Wm. Kemp, Omer Lemieux, Frank Morwick — Wm. Reek — students cut down large spruce trees in the area — Melville Cunningham — a water reservoir for firefighting, surrounded by a "rose-covered" fence — English, French & German — a silver trophy donated by the Rose Society of Ontario to the best student judge of horticultural crops — Lord Bessborough — a talkfest and/or formal dance — student yearbook — 1902 — 1924 — Melissa Sarah Thankful Edwards — mail — 1926 — 30 — Frances Elizabeth Henning — a week in summer when farm families and the general public visited the campus — two — a new government in Ontario with the intention of saving money, which was scarce during the Depression — University of Toronto — Catherine Graham — Creelman — coal — McMaster University — the Trent Building.

Check your answers on the OAC 125 Web site at www.oac.uoguelph.ca/OAC125 or in the next issue of @Guelph.

Answers for OAC 125 Quiz of March 24:

26 - Charles Roberts; 27 - six; 28 - Wm. F. Clarke; 29 - Wm. Johnston; 30 - in the main residence; 31 - assistant resident and mathematical master; 32 - 1873; 33 - Charles Miller; 34 - 1878; 350 - local farmers' groups; 36 - 15; 37 - high school entrance certificate or equivalent; 38 - C.C. James; 39 - the college and the farm; 40 - Creelman Hall site; 41 - the Royal College of Agriculture, Cirencester, England; 42 - in the present I.D. MacLachlan Building; 43 - George Buckland; 44 - to restore order among the students; 45 - May 1, 1874; 46 - 1882; 47 - 1873; 48 - 1880; 49 - provided terms of reference for what was to become OAC; 50 - 1893.

A University of Guelph Identification Card with your correct name, college or directorate, and employee number is required by all employees.

Based on the information sent to us by Human Resources, we understand that you need a staff ID card.

Please bring this notice to Academic Records and have your picture taken for your card.

We are located within the Office of Registrarial Services, on the 3rd floor of the University Centre.

Our hours are 8:30 a.m. to 4:30 p.m.
No appointment is necessary.

Please respond within 30 days of this notice, or your name will be removed from our list.

Thank you.

ARBORETUM

Naturalist Chris Earley will offer a two-part workshop on Ontario's less common warblers April 26 and May 3 at 7 p.m. Cost is \$39. Register by April 19 at Ext. 4110.

Horticulturist Henry Kock will lead woodland wildflower tours in May, covering the identification, life cycles, ecology and culture of woodland plants. The half-day workshops run in two parts May 4 and 19, with a morning session beginning at 9 a.m. and an afternoon session at 1:15 p.m. Cost is \$35. Registration and payment are required by April 27.

Theatre in the Trees presents the dinner-theatre comedy *The Second Time Around* by Henry Denker Saturdays until April 24 at the Arboretum Centre. Doors open at 6 p.m.; showtime is 8 p.m. Tickets are \$45 and are available at Ext. 4110.

ART CENTRE

The Macdonald Stewart Art Centre volunteers present a brown bag lunch lecture with Nick Hill discussing "An Architect's Travels with His Paintbox" April 20 at 11:30 a.m.

Verne Harrison gives an artist's talk on his exhibition "The Museum Chronicles A Post-Modern Parody" April 25 at 3 p.m.

CONCERTS

The U of G Orchestra and Choir conducted by Henry Janzen perform Haydn's *Creation* April 9 at 8 p.m. at the River Run Centre. Soloists are soprano Theresa Thibodeau, tenor Glyn Evans and baritone John Medina. Tickets are \$15 and \$8.

The Central Student Association presents the Cuban band Cubanismo April 11 at 8 p.m. at the River Run Centre. Tickets are \$30 general, \$20 for U of G undergraduates, and are available by calling 763-3000.

Applied music students present two concerts April 12 in MacKinnon 107. Classical guitarist John Kraemer, bass-baritone Glen Scott and soprano Joy Pollard will perform at 1 p.m. Sopranos Jennifer Swainson and Emily Schryer and mezzo-soprano Erin O'Grady will perform at 7 p.m. Piano accompanists are Mary Louise Vosburgh and Betty Maher.

NOTICES

A memorial tribute to University professor emeritus Percy Smith, a retired drama professor and former academic vice-president who died Dec. 10, will be held April 17 at 2 p.m. at the Arboretum Centre. Members of the University and Guelph communities are invited to come and share their memories.

The Human Rights and Equity Office has available new anti-racism

educational materials, including "Unlearn Racism" stickers and posters and the information booklet *Racism. Stop It!* The office can also provide a list of books that address racism and has copies of 1994 and 1996 reports produced by U of G's President's Task Force on Anti-Racism and Race Relations. For more information, call Ext. 3000 or visit the office at 15 University Ave. E.

Leadership for Environment and Development (LEAD Canada) is recruiting outstanding Canadians with a clear capacity for long-term leadership to participate in its next cycle of training beginning in October. LEAD Canada is a two-year training program executed by the National Round Table on the Environment and the Economy. Up to 15 mid-career Canadians (generally aged 25 to 40) are selected each year. Application deadline is May 1. For more information, visit the Web site www.nrtee-trnee.ca/lead or call Donna Chiarelli at 613-995-7519.

OAC will be among the honourees April 23 at the Guelph Historical Society's annual tree-planting event commemorating the day John Galt founded the City of Guelph by chopping down a tree. The 1999 tree planting will take place at 2:30 p.m. in the John Galt Garden, located behind the fire hall on Speedvale Avenue East.

The Ontario Association of Poultry Practitioners and OVC, in association with the American College of Poultry Veterinarians, present a workshop on poultry neonatal health and disease June 10 to 12 at OVC's Lifetime Learning Centre. Registration is \$150. For more information, call Prof. Bruce Hunter, Pathobiology, Ext. 4625.

The Guelph Food Technology Centre (GFTC) is offering a number of technical training courses for the food industry in April. Coming up in Guelph are seminars on "Cookie Production" April 13 to 15, "HACCP for Executives: Business Reasons for HACCP" April 20, "HACCP for the Food-Service Sector" April 20 and 21, "HACCP Train the Trainer for the Food-Service Sector" April 22 and "Cheese-Making Technology" April 26 to 29. A technical symposium on "Quality Assurance in the Food Industry" runs April 27 and 28. The GFTC will hold its annual Food Industry Trade Show April 29 from 9 a.m. to 4:30 p.m. For more information, call Marlene Inglis at 821-1246, send e-mail to minglis@uoguelph.ca or visit the Web site www.gftc.ca.

The College of Arts is calling for nominations for its annual Teaching Excellence Award, which recognizes excellence in undergraduate or graduate classroom teaching, teaching innovation, curriculum or course development, student advising and any other activity associated with teaching. Full-time, part-time and sessional faculty and graduate

students are eligible for the award. Nominations must be submitted by April 30 to the College of Arts dean.

The U of G Child-Care Centre will hold its second annual garage sale April 24 from 9 a.m. to 3 p.m. in the centre's parking lot. The centre is looking for donations of unwanted items for the sale. For more information, call Ext. 2682.

The Canada-European Community Program for Co-operation in Higher Education and Training supports the development of international joint projects among universities, colleges and technical institutions in Canada and countries of the European Community. The principal goals are to strengthen co-operation in post-secondary education, training and internship and increase student mobility. The next application deadline is May 21. For guidelines and application procedures, visit the Web site www.hrdc-drhc.gc.ca/hrdc/hrb/learnit/policy/academic/index_e.html. For more information, send e-mail to tom.mccloskey@hrdc-drhc.gc.ca.

SEMINARS

Guest speaker in the Department of Molecular Biology and Genetics seminar series April 9 is Prof. Mark Baker, Pathobiology and Molecular Biology and Genetics, on "Molecular Mechanisms of Homologous Recombination in Mammalian Cells" at noon in Axelrod 028.

The Department of Philosophy presents Georges Dicker of SUNY Brockport discussing "Berkeley on the Impossibility of Abstracting Primary from Secondary Qualities: Some Lockean Rejoinders" April 9 and Jill McIntosh of the University of Western Ontario April 16. The talks begin at 3:30 p.m. in MacKinnon 314.

The Department of Physics presents Diandra Leslie-Pelecky of the University of Nebraska discussing "Disorder and Magnetism" April 12 at 4 p.m. in MacNaughton 113.

The Department of Chemistry and Biochemistry presents Romas Kazlauskas of McGill University discussing "Finding Stereoselective Hydrolases: Models, Computing Modelling and New Screening Methods" April 13 at 3:15 p.m. in MacNaughton 222.

The Department of Animal and Poultry Science graduate seminar series continues April 13 with Facundo Laborde explaining "Breed Effects on Fatty-Acid Composition in Longissimus Muscle of Finishing Steers" at 11:30 a.m. and Jeff Rau on "Effect of Trough-Anchored Blind Teats on Behaviour, Feed Intake and Growth of Early Weaned Piglets" at 12:15 p.m. On April 20, Ricardo Gonzalez examines "Utilization of Different Sources of Omega-3 Fatty Acids to Enhance Nutritive Value of Poultry Products" at 11:30 a.m. The seminars take place in Animal Sci-

ence and Nutrition 141. Next up in the Axelrod Institute of Ichthyology Loaves and Fishes seminar series is a discussion of "Applications of Physiological Telemetry to Fish Ecology" with Steve Cooke of the University of Waterloo April 13. On April 20, Guy Perry examines "Quantitative Trait Loci for Upper Thermal Tolerance in Rainbow Trout." The seminars are at 12:30 p.m. in Axelrod 168.

The biochemistry seminar series continues April 22 with John Glover of the University of Toronto explaining "Protein Aggregation and the Role of Hsp104 in Thermotolerance and Amyloidosis in Yeast" and April 23 with Carla Shouldice on "A Novel Nucleating Factor for Tubulin Assembly." The talks begin at noon in MacNaughton 222.

THEATRE

VisionDance, a choreographic convergence of dance and performance theatre, runs April 23 and 24 at 8 p.m. at the Inner Stage. It features performances by Janet Johnson, Catrina von Radecki and Linda Baker. Tickets are \$10 and are available at the door. To reserve a ticket, call 836-0788.

THESIS DEFENCES

The final examination of M.Sc. candidate Anthony Choudhry, Chemistry and Biochemistry, is April 8 at 3 p.m. in Chemistry/Microbiology 370. The thesis is "Inhibition of Bacterial Cell Wall Biosynthesis by the Affinity Label N-Bromoacetyl-glucosamine." The adviser is Prof. Anthony Clarke.

The final examination of PhD candidate Wijam Simachaya, Engineering, is April 9 at 8:30 a.m. in HAF 301. The thesis is "Integrated Approaches to Water Quality Management Using Geographic Information Systems and the WASPS Simulation Model: Application to the Tha Chin River Basin, Thailand." The adviser is Prof. Isobel Heathcote.

The final examination of Peter Briggs, an MLA candidate in the School of Landscape Architecture, is April 9 at 2 p.m. in the Landscape Architecture Building foyer. The thesis is "Community Development with Indigenous Communities: Facilitating the Creation of Appropriate Environments." The adviser is Prof. Larry Harder.

The final examination of PhD candidate Sheldon Kawarsky, Department of Biomedical Sciences, is April 14 at 9 a.m. in OVC 1642. The thesis is "The Effect of Elevated Temperature on the Bovine Oocyte and Embryo in Vitro." The adviser is Prof. Allan King.

The final examination of Benjamin Bradshaw, a PhD candidate in the Department of Geography, is April 16 at 10 a.m. in Hutt 234. The thesis

is "Resource Use Response to Subsidy Removal in Commercial Agriculture." The adviser is Prof. Barry Smit.

The final examination of PhD candidate Glenn Boyle, Zoology, is April 20 at 9 a.m. in Axelrod 265A. The thesis is "Constraints on the Feeding Behaviour of Phocid Seals." The advisers are Profs. Dave Lavigne and Tom Nudds.

The final examination of M.Sc. candidate Robert Proos, Chemistry and Biochemistry, is April 21 at 9:30 a.m. in MacNaughton 222. The thesis is "Overtone Investigation of Methyl Substituted Pyridines and Absolute Overtone Intensities of Nitric and Pernitric Acids." The adviser is Prof. Bryan Henry.

The final examination of Selma Guigard, a PhD candidate in the School of Engineering, is April 23 at 8:30 a.m. in Crop Science 403. The thesis is "Solubilities in Supercritical Fluids." The advisers are Profs. Warren Stiver and Richard Zytner.

The final examination of M.Sc. candidate Andrew Wingate, History, is April 26 at 9 a.m. in MacKinnon 132. The thesis is "The Colonel and His Flock: Thomas Talbot's Settlement in Upper Canada." The adviser is Prof. Gil Stelter.

COMMUNITY EVENTS

Hospice Wellington is holding a fund-raising Movenpick's Marche Dinner April 23 at 6:30 p.m. at Creelman Hall. The evening includes a silent auction and entertainment by Kathryn Elton, the Brad Krauss Duo and the Royal City Big Band. Tickets are \$100 (partial tax receipt will be issued). For tickets, call 836-3921.

The Canadian Wildflower Society (Dogtooth chapter) meets April 21 at 7:30 p.m. at the Arboretum Centre. Tyler Smith, restoration ecologist for the Cootes Paradise Project, will discuss "Restoring Paradise." Everyone is welcome.

The Guelph Off-Road Bicycling Association is looking for new members. For information, leave a message at 821-8013.

The Central Ontario Orchid Society will meet April 19 at 7 p.m. in Kitchener at the St. Joseph's Catholic Church at the corner of Courtland and Madison. This month's slide show is titled "Yes, Sir, That Is an Orchid." For more information, call 836-4321.

The Guelph Historical Railway Association is sponsoring a tourist train running from the River Run Centre to Guelph Junction near Campbellville April 9 to 11. Six two-hour runs are planned throughout the weekend, including one dinner train leaving Saturday at 5:30 p.m. For tickets, call the River Run box office at 763-3000.



U E L P H

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IN THIS ISSUE

- 3 **SULLIVAN** to join UBC as vice-president, students, Aug. 1.
- 4 **SUPPORTED** learning groups help first-year students make the grade.
- 5 **ORCHID** studies aim to prevent poaching in the wild.
- 6 **HEALTHY**, wealthy and why?
- 7 **VETERINARY** technician's job is for the birds.

Ottawa Supports Agri-Food Network

Research will help boost Canada's competitiveness

CANADA'S ABILITY to compete in the tangled, complicated and yet vitally important global agri-food trade arena is taking a giant step forward, with U of G's help.

Last week, federal Agriculture and Agri-Food Minister and U of G alumnus Lyle Vanelief visited campus to announce a \$750,000 commitment to the Canadian Agri-Food Trade Research Network (CATRN), involving the universities of Guelph, Saskatchewan and Laval.

The network is designed to support research that sheds light on how Canada can best position its agri-food industry in the upcoming World Trade Organization talks, starting this November in Seattle.

"Knowing the potential impact of various scenarios will help government negotiators determine gains or losses from trade liberalization policies," says Vanelief. "This underscores the need for research in the agri-food industry and is an indicator that the government recognizes the key role universities play in developing policy."

Guelph MP Brenda Chamberlain, who also travelled from Ottawa to attend the announcement, says the funding is "wonderful" re-

Continued on page 3



UPWARDLY MOBILE

Graduating students Jeremy McIvor, left, and Dan MacLean will be moving up in the world next month when they cap four years of climbing experience by tackling Canada's highest peak. See story on page 8.

PHOTO BY DEAN PALMER/SCENARIO IMAGING

Nightingale Appointed Founding Dean of CSAHS

Dean stresses importance of maintaining quality, relevance of college's programs

PROF. MICHAEL NIGHTINGALE has been appointed founding dean of the College of Social and Applied Human Sciences (CSAHS). He has been serving as interim dean since the May 1, 1998, amalgamation of the former colleges of Family and Consumer Studies (FACS) and Social Science (CSS).

"Our new college is evolving a creative and ambitious vision for serving society," says Nightingale, "and I am looking forward to playing a part in this process—a process designed to ensure that a firm foundation is established for the future."

As dean of FACS from 1994, he guided that college through the 16-month process of discussion and consultation that led to the formation of CSAHS.

Nightingale's academic career began at Guelph in 1987 when he came from a business background in management consulting and training development to head the School of



Dean Michael Nightingale

Hotel and Food Administration.

Since that first appointment, he has consistently stressed the importance of maintaining the quality and relevance of the programs offered in the school, FACS and now the new college. In 1994, Nightingale

said that serving society "is just a natural part of what we do," and when celebrating the creation of CSAHS last spring, he described it as a progressive academic community that would be distinctive in its scope and responsive to a range of pressing societal needs.

"Part of our mandate is to provide a better understanding of human behaviour and to improve the human and economic development, health and well-being of individuals, families, communities and organizations," he says.

Prof. Iain Campbell, provost and vice-president (academic), congratulates Nightingale on the appointment.

"We have benefited from Michael's thoughtful and sensitive leadership since the University first challenged FACS and CSS to redefine themselves for a rapidly chang-

Continued on page 11

CIDA Funds Projects in Egypt, Russia

Programs aim to improve educational opportunities

TWO U OF G PROGRAMS aimed at improving educational opportunities in Egypt and Russia have received more than \$1.2 million from the Canadian International Development Agency (CIDA).

CIDA is providing \$750,000 from Tier 2 funds for the Distance Learning Program in Agriculture and Rural Development in Egypt, and \$528,000 from another fund for the Farm Management and Distance Education Training Project in Russia.

Tier 2 programs are managed by the Association of Universities and Colleges of Canada and promote the development and internationalization of education, research and extension activities of Canadian universities. U of G's Egyptian project was one of 60 submitted from Canadian universities for CIDA's Tier 2 funding. Nationwide, 13 programs received support.

Both projects are being overseen by the School of Rural Extension Studies and basically modelled after a successful distance education program Guelph established seven years ago at the University of Dschang in Cameroon. "If something works, you stick with it," says Prof. Doug Pletsch, director of the school.

The Cameroon program consists of 20 distance education courses designed by Cameroon faculty with guidance from U of G professors. It offers three certificates and has been credited with opening up education to rural people in Cameroon.

The Egyptian project will be similar with an extension focus. It is in partnership with the University of Mansoura, which is supplying an additional \$400,000 of in-kind support.

U of G faculty will help Mansoura faculty deliver and manage distance learning programs in agriculture and rural development. Faculty in Egypt will design and write

Continued on page 8

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SENATE REPORT

U of G Will Focus on Policy Development in Approach to Future Enrolment Situation

President Mordechai Rozanski opened Senate April 13 with an overview of the enrolment situation facing Ontario universities over the next decade. He outlined the factors that are expected to push demand for university spaces from 229,000 today to 317,000 by 2010.

The demographic growth of university-age young people in Ontario will rise 18 per cent by 2010, he said, and the increase in university attendance may, as a re-

sult, increase 40 per cent by that time. This reflects a projected increase in participation rates to about 25 per cent. Added to that is the additional 30,000 to 40,000 students expected to enter the system in 2003 — the so-called double cohort created by the elimination of Grade 13.

He noted, too, the growing workplace demand for a university education. It's predicted that by 2000, 60 per cent of jobs will require 17 or more years of education.

Rozanski told senators that U of G will not deal with this situation by responding solely to the government's request that universities accept more students. Instead, Guelph will develop a policy context for its response.

A policy process, already under way, will involve discussions to affirm U of G's programmatic and institutional goals and the size it wants to attain before determining the number of additional students it can reasonably take. The Senate Committee on University Planning (SCUP) has already had preliminary discussions on this issue, and the report of the ad hoc double cohort working group, which is identifying the issues that need to be addressed, will soon be released to SCUP. Ultimately, Senate and Board of Governors will be involved in these discussions.

Paramount in all the discussions will be the issue of quality, said Rozanski, because the preservation of programmatic quality is the key element in any response to growth.

Beyond campus borders, Guelph is joining universities province-wide to raise public and government awareness of the looming enrolment crisis and to work with the government to increase funding. Universities are stressing that they must receive funding to restore their foundations before they can begin to think about significantly increasing enrolment, said Rozanski. Universities cannot respond to growth issues unless their academic quality, research quality and physical infrastructure are restored, he said.

Ontario universities want to improve their student-to-faculty ratio — now sitting at 20 to 1 — to match the average of the other nine provinces — 16 to 1, said Rozanski. This means investing in faculty and new hirings and in graduate studies to maintain the pipeline for future hirings.

This need for more faculty is compounded by the bulge of faculty retirements expected in the early 2000s as well as the expected growth in student demand for university spaces, he said. By 2010, Ontario

universities will need 11,000 to 13,000 more faculty and will be competing with universities across North America experiencing the same need.

Conversations with the government on these issues continue, said Rozanski, who chairs the Council of Ontario Universities' government and community relations committee. The universities' cause is being aided by parents who are asking questions about the future, worried that there won't be a place for their children at universities. The issue has also attracted the attention of media (see page 4 for a reprint of a recent editorial in the *Guelph Mercury*). The key is to sustain that interest and the sense of urgency, he said, because there is little time to prepare for 2003.

SENATE UPDATED ON CAMPAIGN PROGRESS

John Mabley, vice-president (development and public affairs), and Rudy Putns, executive director (campaign programs), updated Senate on the progress of the University's upcoming capital fundraising campaign.

The first major step — completing an inventory of campaign needs — has been completed through wide consultation with VPAC, the provost and deans, said Putns. The primary needs identified are: infrastructure components (learning and research thrusts), faculty renewal, knowledge access (library and learning resources), student support and enhancement funds (learning and research).

The campaign, which is expected to last up to five years, is off to a strong start with a preliminary inventory of needs in place, said Mabley, and the next step is to test the feasibility of those needs among a select group of the University's external friends and funders. A feasibility study, to be conducted from April to July, will help gauge the level of external support for the draft memo of campaign priorities. It will also help identify external friends with the capacity and interest to accept volunteer positions with the campaign. The University

relies heavily on the external community, not only for financial support, but also for their value as spokespersons, Mabley said.

Once the feasibility study is complete, the results will be analysed and used to refine a case for support. This is expected to take place during the fall. A volunteer campaign steering committee will also be put into position this fall.

Putns reported that Development and Public Affairs is currently organizing a database that will become the backbone for qualifying future prospects. He also noted that a team of professional senior development managers to be located throughout the colleges would all be in place by the end of the week.

REVISION OF CRITERIA FOR SEMESTERS ABROAD TABLED

Senate tabled for further study a motion by the Senate International Committee (SIC) that the criteria for the ranking of semester-abroad programs, which were approved by Senate in May 1997, be revised in response to student concerns about the cost of such programs. The proposed revision, presented by SIC at the request of Student Senate Caucus, suggested that any new semester-abroad program be designed so that the cost to participating students not exceed the sum of BA/B.Sc. tuition fees, double occupancy residency fees and a full meal plan at U of G, multiplied by a factor of 1.7.

Members of Student Senate Caucus said the motion was aimed at ensuring that semester-abroad programs are accessible to all students, not just those who can afford the extra costs, so that all students can graduate with similar experiences and the same quality of education. One student noted that this was a particular concern at a time when students are facing increasingly large financial burdens.

Several faculty senators expressed concern about the 1.7 formula. Some said it was too rigid and could result in some programs being eliminated even though they are highly valued by the students par-

Continued on page 9



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BIOCHEMIST TO GIVE CHAPPEL LECTURE

Irwin Fridovich, the James B. Duke Professor Emeritus of Biochemistry at Duke University Medical Centre, will give the 1999 Chappel Memorial Lecture May 13 at 3 p.m. in the OVC Learning Centre. His topic is "Oxidative Stress: the Threat, the Defences and the Consequences." Fridovich received his PhD in biochemistry from Duke in 1955 and spent his entire career there, retiring in 1996. He has received numerous awards, most recently the City of Medicine Award from Durham, N.C., and the Anlyan Lifetime Achievement Award from the Duke Medical Centre. The Chappel lecture is sponsored by OVC, CBS, the Office of Research and Graduate Program Services.

MCC MEAT CANNER RETURNS

The Department of Animal and Poultry Science will once again play host to the Mennonite Central Committee (MCC) as it brings its mobile meat canner to campus this week to process beef for use in overseas relief operations. MCC volunteers will set up shop April 22 in parking lot P30 just off Smith Lane and will offer tours April 25. Canning gets under way April 26 and runs daily from 5:30 a.m. to 10 p.m. Monday to Thursday, then 5:30 a.m. to 3 p.m. Friday. Last year at U of G, the MCC processed 50,000 pounds of beef that were distributed around the world.

ANNUAL MEETING SET

The Guelph-Waterloo Centre for Graduate Work in Chemistry and Biochemistry will hold its annual meeting and seminar April 29 at U of G. The annual general meeting for members of the centre begins at 2 p.m. in Room 100 of the Thornbrough Building. At 3 p.m., Don Irish of the University of Waterloo gives a public seminar on "Chemistry by Laser Light — A Retrospective." This will be followed by a poster session, reception and awards presentation, all in Room 103 of the University Centre. For more information, call Andrea Wetmore at Ext. 3848.

NEW AWARD BUILDS LEADERSHIP SKILLS

This is National Volunteer Week, a time to celebrate the contributions of thousands of volunteers across the country. Here at Guelph, the U of G Alumni Association (UGAA) is celebrating its volunteers by presenting the first Rosemary Clark Volunteer Leadership Award to UGAA president Jim Weeden. Named for Rosemary Clark, a 1959 graduate of Macdonald Institute and former director of alumni affairs, the award enables the recipient to attend a leadership conference or workshop to gain knowledge that will benefit his or her role as an alumni volunteer. Weeden used the award to attend a three-day workshop offered by the Ontario Ministry of Agriculture, Food and Rural Affairs.

Exports to Reach \$40 Billion

Continued from page 1

On hand for the announcement of federal funding for the Agri-Food Trade Research Network are, from left, Agriculture and Agri-Food Minister Lyle Vancilief, MP Brenda Chamberlain, Prof. Karl Meilke and president Mordechai Rozanski.

PHOTO BY MARTIN SCHWALBE

ognition of Guelph's pre-eminence in agri-food.

CATRIN will focus on issues such as biotechnology, intellectual property rights, amendments to the trade dispute settlement process and the protection of human, plant and animal health.

Understanding the complexities of competing nations' trade support — and how to compete against them — is crucial for Canada's agri-food industry and farmers, who realize about half of their income from exports. This need will further intensify over the coming years as Canada aims

to increase its agri-food exports to \$40 billion by 2005, from its current level of \$25 billion.

The federal support will enable each of the participating universities to hire assistant professors dedicated to the agri-food trade. Guelph's participation is being co-ordinated by Prof. Karl Meilke, Agricultural Economics and Business.

"We hope our work will help Canada become more competitive and prosperous at both the farm level and agri-food processing level," Meilke says.

President Mordechai Rozanski

notes that the food system, like other key Canadian industries, increasingly demands collaborative effort and a global vision, such as can be obtained when public- or private-sector partnerships are developed with leading university researchers.

"This funding announcement recognizes the University of Guelph's position as a national centre for agri-food research and education, as well as economic and public policy development," he says.

BY OWEN ROBERTS
OFFICE OF RESEARCH

Sullivan to Join UBC Aug. 1

VANCOUVER IS CALLING Brian Sullivan. The associate vice-president (student affairs) is leaving U of G in June to become vice-president, students, at the University of British Columbia. The appointment is effective Aug. 1.

Sullivan says that leaving U of G will be difficult, but he's excited by the prospect of new challenges at UBC. He will move from a university with 14,000 students to one with 33,000 and will oversee recruitment and admissions, student services, residences, athletics, recreation, community outreach and alumni relations. This portfolio has a budget of \$142 million and about 460 staff.

The responsibility for recruitment, admissions and alumni affairs will be new for Sullivan. He is joining UBC during the implementation of its TREK 2000 strategic plan, which highlights enhanced support for students before they attend university, through graduation and beyond. "Some call it a 'cradle to grave' approach to student services," he says, "and I believe it is unique in Canada."

UBC president Martha Piper says Sullivan's experience, skills and vision will help UBC provide a learning environment for students to thrive.

Sullivan, who earned a master's of public health from Yale University in

1970 and a bachelor's degree from Harvard in 1968, joined U of G in 1984 as executive assistant to the provost, when provost was the title used for the chief student affairs officer. He was named acting provost, student services, in 1987 and associate vice-president (student affairs) in 1988.

He believes his experiences at Guelph will help him with the new challenges at UBC. "I am very proud to have been a part of a university that is so truly committed to its students and focused on their total learning experience. It was wonderful to work with such talented directors and senior administrators and to have the opportunity to partner with so many outstanding student leaders. U of G has high-quality staff, faculty and students, and I am thrilled to have been a part of their success in achieving the gains this university has made."

Provost Iain Campbell says Sullivan's departure is "a tremendous gain" for UBC, but a loss for Guelph. "Brian has played a major role in the development of U of G's excellent reputation as a student- and learner-centred university." Among the most notable of Sullivan's accomplishments is his work with student affairs directors and college deans to integrate student services units with academic programs, Campbell says.

President Mordechai Rozanski adds that Sullivan has shown deep commitment to students during more than a decade of service at U of G. "He has established the University of Guelph as one of Canada's pre-eminent leaders in student affairs policy, program development and administration. We are very sorry to see him go, but wish him great success."

His departure will also be felt by students. "We are pleased for Brian and wish him the best of luck in his new position," says Jessica Carn, spokesperson for the Central Student Association. "He has been a valued member of the University community for many years, and his contributions to the well-being of the student body will not soon be forgotten."

Sullivan, his wife, Hilary, and two of their four children will move to Vancouver in July. "The chance to experience a different part of the country is welcome," says Sullivan. "We've heard all the warnings about the rain, but the warmer climate is a real bonus. I hope to find a place close enough to campus that I can maintain my biking habit. Given the size of the campus and all the people I'll have to meet, I'm going to need my bike just to get around at work."

BY LORI BONA HUNT

PEOPLE

BOTANIST TO EDIT JOURNAL

Prof. Larry Peterson, chair of the Department of Botany, has been appointed editor of the *Canadian Journal of Botany*, one of the largest botanical journals in the world. Peterson's five-year appointment begins July 1. Formerly edited at the University of British Columbia, the journal is published by the National Research Council of Canada.

LANGUAGE PROFS GIVE TALKS

Prof. Daniel Chouinard, director of the School of Languages and Literatures, was invited by the Institut International Charles Perrault/Université de Paris XIII to give a lecture and participate in a panel on "Children's Literature and Québécois Culture" at the Paris Book Fair in March. Prof. François Paré gave the keynote talk at the conference "The Decline of the French Renaissance and the Drifting of the Post-Modern World" at Simon Fraser University in March. His topic was "La pauvreté Gutenberg: le déclin des codes dialogiques."

AUTHOR TO READ

Prof. Stephen Henighan, Languages and Literatures, will give a reading from his new collection of short stories, *North of Tourism*, May 20 at 7:30 p.m. at the Imperial Public Library, 54 Dundas St. E., Toronto, as part of the University of Toronto's bookstore series. *North of Tourism* was published this month by Cormorant Books.

PERFORMANCE SALUTES ROBERTSON DAVIES

Prof. Peter Briggs, Literatures and Performance Studies in English, and Guelph doctor Rick Davis will present a dramatic performance about correspondence between Davis and author Robertson Davies at a May conference of Ontario general practitioners who specialize in psychotherapy. Davis and Davies wrote each other for many years, and Davis served as medical consultant for the writer's novels.

IN MEMORIAM

Charles Smith

A memorial tribute and dedication for professor emeritus Charles Smith, Animal and Poultry Science, who died June 16, 1997, will be held May 30 at 3 p.m. on the site of a living memorial established in his memory at the Arboretum. (In the event of inclement weather, the event will be held inside the Arboretum Centre.) Prof. John Gibsun, Animal and Poultry Science, will lead the tribute. Friends and colleagues are invited to come and share their thoughts and memories.

Florence Stewart

Florence (Flo) Stewart, a former purchasing agent who joined U of G in 1968 and retired in 1988, died April 12 in Kitchener. She is survived by her husband, Donald. A tree will be planted in her memory Sept. 19 at 2:30 p.m. at the Arboretum's Wall-Custance Memorial Forest.

Growing Concern for Universities

Editor's note: This editorial appeared in the April 6 issue of the *Guelph Mercury* and is reprinted here with permission.

GUELPH READERS will hear a lot more about the "double cohort" problem. If they care about the public education system, they'll make a point of getting involved.

Ontario university presidents, including University of Guelph president Mordechai Rozanski, raised the alarm March 31 to Queen's Park politicians. They spoke with a unified voice to get financial aid for their schools, hard hit by years of provincial and federal funding cuts.

Cutting money left the universities, including U of G, hustling to pare staff, increase research, explore partnerships, raise tuition — anything to make up for the millions of dollars lost.

It was an impossible task. How do you then get government and voters' attention? With equally severe cuts in health-care funding, people weren't particularly aware of the university cuts. Compared with clogged emergency rooms and closed hospitals, the

higher education funding debate lacked a clear image for people. Now university leaders think they have a framework everyone will understand — the double cohort problem.

Rozanski is appealing to Queen's Park to spend money in its spring budget for thousands of new post-secondary school students expected in several years.

The Council of Ontario Universities warned March 31 that it expects almost 89,000 additional students over the next decade, including 35,000 in a surge expected in 2002, the result of a double cohort when Grade 12 is eliminated.

Rozanski, who chairs COU's government and community relations committee, said his university and others need new funding to prepare for thousands of new students. "We can't wait until 2002. There's an urgent need now... to prevent a crisis in 2003 and 2004."

Rozanski and his colleagues are very blunt — it's hard to speculate on how many new students the University can expect, because there isn't any room. "We're at capacity."

Here in Guelph, U of G has six per cent of

the 229,000 students in Ontario's 17 universities. Six per cent of the 35,000 in the double cohort translates into an additional 2,000 students for the University of Guelph's 14,000-strong student body.

The council's position is that the rising number of students over the next decade translates into a need for 11,000 to 13,000 new Ontario faculty members to keep pace and replace retiring faculty. It projects within about five years the need for an additional \$1.2 billion to \$1.8 billion annually for university operating and capital costs, as well as student aid.

The Tory government has justified the cuts as an opportunity for "bloated" university administrations to pare down. It's true that restructuring has forced universities, colleges and other post-secondary institutions to focus on their mission.

Here in Guelph, as a result of academic restructuring, two colleges have merged. U of G has an aggressive marketing and recruitment campaign to attract the best and brightest. Despite cutting close to 20 per cent of its staff,

the University has managed to move up to second place in *Maclean's* annual rankings of the best Canadian universities.

There is an upside to forcing the existing education system to rethink what it's doing, but that time has passed, and we believe Ontario residents should pay attention to Rozanski's warning. Universities have only a limited number of ways to pay the freight. They can hike tuition, increase enrolment, limit services or capital spending and find new revenues. All come with a complicated string of repercussions.

For example, U of G has emphasized science education as one core excellence. That comes with a price. Getting the best science students means buying the newest equipment and hiring the top academics. It also requires smaller class sizes compared with general liberal arts courses — so they need more lab and class space.

If the University administration does its job in restructuring the current system, government is not off the hook. In fact, it now must do its part by looking at the gaps and stress points in the "new" structure to ensure nothing falls through the cracks.

Supported Learning Groups Help First-Year Students Make the Grade in High-Risk Course

Group sessions are an alternative for students who hesitate to discuss problems with their professor

JUST HOW CONFIDENT was Nancy Schmidt that she could improve first-year students' academic performance in the academic wringer of introductory chemistry through supplementary learning sessions run by undergraduate peer helpers? Confident enough that the co-ordinator of U of G's Learning and Writing Services was prepared to wager with OAC dean Rob McLaughlin that supported learning groups (SLGs) would improve the grades of B.Sc. (Agr.) students taking the course.

If the cohort of students attending SLGs completed the course with higher-than-expected grades, then McLaughlin's program would pick up the cost of the two peer helpers. If not, then her office would absorb the cost. The result, says Schmidt: "Twenty-three of the 118 students who attended SLGs were from the Aggie program, and we did win our bet."

Armed with favourable results from last semester, she's now banking on applying the SLG concept to five other high-risk first-year courses next fall to help students improve or maintain their grades, to foster collaborative learning and to boost the University's first-year retention rate.

Last semester's test run was modelled after a 26-year-old program at the University of Missouri-Kansas City (UM-KC) that has led to a one-half to a full grade increase in undergraduate marks since it was introduced. It has since been replicated by other universities in the United States, Britain, Australia and South Africa.

In the Guelph trial, the SLG participants earned a mean final course grade eight per cent higher than students who didn't attend sessions, says Mary Wilson, learning skills specialist/supported learning groups supervisor in Learning and Writing Services.

That gap can make all the difference in a course that routinely sees many students teetering on the pass-fail line.

"Take eight per cent off all the 50s we get and many students wouldn't have passed," says Prof. Joe Prokipek, Chemistry and Biochemistry. He notes that 118 students from his lecture section attended at least one SLG ses-

sion last fall, with the average student attending seven sessions.

His is one of a handful of high-risk courses in which at least 30 per cent of students drop or fail the course or earn a D grade average. Although Wilson says the model need not be restricted to entering students, "it's no accident that these are first-year courses. There are all kinds of transition issues for these students. Although some students enter prepared for the rigours of Guelph's curriculum, many first-year students face the challenge of adjusting their approaches to learning and self-management to meet the demands of more intensive course work."

Adds Schmidt: "Students leave high school very teacher-dependent. What they needed to

"The SLG leaders do not tutor, lecture or introduce material," says Wilson. "Rather, they help the students become more proficient at matching 'what to learn' with 'how to learn.'" The sessions are not intended to usurp the traditional role of teaching assistants, she says.

Group leaders must have attained an A in the course and have a cumulative A average and require experience or interest in student leadership. Besides running the groups, they attend the regular lectures and meet occasionally with the course professor.

"Last semester, my personal accomplishment was that nobody failed the course who came regularly to the SLG," says group leader Brendan Munn, a third-year engineering stu-

dent. "The SLG project is "meant to complement existing services, but it's not a panacea."

Nor are SLGs intended as remedial work for struggling students. Far from it, she says, explaining that the sessions are designed to help students either improve their grades or maintain high averages. "It gets them to translate effective practices in their study and learning approach that I hope they will carry to their other courses."

For students who hesitate to discuss problems with their professor, the group sessions provide an alternative, she says. "It's an opportunity for students to come together in a non-threatening, task-oriented environment. There's a social aspect to it, but it doesn't disintegrate into conversations about where you're going after class or what you're doing on the weekend."

Wilson says 10 to 15 leaders will be needed for the seven introductory courses to be included in the program next fall, including the two general chemistry courses and offerings in economics, psychology and calculus. Next fall's sessions will be paid for almost entirely through funding from the provincial government's Learning Opportunities Program (LOP), a comprehensive support program for students with learning disabilities. Although participation in the pilot project was on a voluntary basis, students with learning disabilities will be slotted into the SLG-linked section of the courses and will take part in the groups.

"The design of the SLG project fit in very well with the LOP initiative because it is integrated, non-remedial and allows for the active learning and modelling via group work that are so pertinent for students with learning disabilities," says Wilson.

As part of that initiative, U of G will formally evaluate the SLGs next fall under a research proposal that has already won a UM-KC award for innovative research design for psychology graduate student Kelly McManus.

For more information on SLG programs, visit the UM-KC supplemental instruction Web site at www.umkc.edu/cad/.

BY ANDREW VOWLES

"MANY FIRST-YEAR STUDENTS FACE THE CHALLENGE OF ADJUSTING THEIR APPROACHES TO LEARNING AND SELF-MANAGEMENT TO MEET THE DEMANDS OF MORE INTENSIVE COURSE WORK."

learn, the teacher structured and told them. At university, the rules of the game have changed. Things are more self-directed, more learner-centred. If anything, what the supported learning groups do is engage students in the kind of learning they need to do when they're on their own."

Prof. Bob Balahura, who co-ordinates U of G's introductory chemistry courses, says SLGs "have been a real boon in that they are a way of actively promoting learning. This is a great way for students to not only learn but to manage their time."

Under the leadership of a senior undergraduate student, the SLGs meet for up to three hours a week to review notes, discuss readings and important concepts, develop problem-solving strategies through mock exam sessions and pop quizzes, and impart tips on studying, time management and setting goals. The groups are voluntary, with some students attending every session and others coming perhaps weekly or only before exams.

dent. Noting that he achieved his target with 12 students who attended most of last semester's 24 sessions, Munn says: "That's a goal I have for this semester."

Also leading sessions this semester is third-year biology student Adrianna Arkilander. Since January, 60 students have attended an average of seven sessions.

By Leanne Swinnard's measure, the project is working. It was only after she failed the mid-term exam last semester that the first-year B.Sc. student began attending SLG sessions. Joining the group helped boost her mark, but not enough to stave off failure.

Now taking her second crack at the course, Swinnard attributes her regular SLG attendance for her markedly improved results in the notoriously difficult course. "Last semester, I failed the mid-term, and this semester, I got a B."

SLGs join what Wilson describes as Guelph's "incredible tradition of providing all sorts of support to first-year students." She notes

Orchid Studies Aim to Prevent Poaching in the Wild

Research may aid in efforts to re-establish some species of orchids that are suffering the worst of predation and habitat destruction

WHERE'D YOU GET that lady's slipper? That's the question botany PhD student Carla Zelmer hopes more gardeners will ask of their suppliers to curb poaching of the delicate but showy plants from their native habitat.

Her studies of the peculiar relationship between orchids — including the prized lady's slipper species — and various companion species of fungi are intended partly to help nursery growers better propagate the plants and forestall their removal from the wild. Her work might also aid in efforts to re-establish some species of orchids that are suffering the worst of predation and habitat destruction.

Heft Zelmer's copy of *The Native Orchids of the United States and Canada* and you might wonder at the notion that some orchids are in peril. Some 30,000 to 50,000 species exist worldwide. Although their home base is the tropics, species live in most parts of the world from sub-alpine sites to deserts. They manage to exploit a range of niches, including epiphytic types that root themselves high in trees.

"They're one of the largest families of flowering plants on earth," says Prof. Larry Peterson, chair of the Department of Botany and Zelmer's adviser.

Key to orchids' ubiquitousness is the numerous tiny "dust seeds" they readily produce and broadcast. These are probably the simplest seeds of all flowering plants, says Zelmer. When the seeds are dispersed, the embryo usually lacks food reserves and has yet to form root and shoot meristems found in the seeds of other plants. "It's almost as if they're born prematurely," she says.

In that simplicity lies the secret to the orchid's success — and its potential downfall. Lacking its own nutrient stores, one of those preemies must meet up with a fungus that will invade the seed coat and provide the nourishment needed for germination. Although other plants have similar relationships with fungi, the partnership isn't as critical as it is with orchids, Peterson says.

In addition, an orchid seed must find the correct fungus to develop.



Botany graduate student Carla Zelmer looks over flats of seedlings in a growth chamber of the Axelrod Building, where she's studying the peculiar relationship between lady's slipper orchids and their requisite symbiotic fungi in a project designed to help conserve the showy plants in their native habitats.

PHOTO BY DEAN PALMER/SCENARIO IMAGING

Even then, the marriage might not work out if, say, the fungus overwhelms the plant or if the orchid develops an immunity to the fungus and inadvertently wipes it out. Which particular fungal strains or species are involved and just how they orchestrate this intricate pas de deux with the host orchids isn't well understood, according to a review article that Peterson, Zelmer and former research associate Yukari Uetake published last year in the journal *Symbiosis*.

Zelmer, who became interested in the topic while studying at the University of Manitoba, says it's difficult to identify the attendant fungi because they remain within the soil and produce cryptic fruiting bodies. In master's research at the University of Alberta, she explored which fungi were associated with native orchids there and unearthed two new fungal species. Of the roughly 50 species of orchids native to Canada, about half can be found in Alberta.

Here at Guelph, she's studying lady's slippers, the showiest and most sought-after of the hardy orchids. Named for a prominent pouted lip on the flower, slipper orchids are

generally found in temperate regions, including North America and the Far East. There are more than 100 species of slipper orchids around the world; among others, Ontario is home to the showy lady's slipper or *Cypripedium reginae*, found here in Wellington County, and to the pink moccasin flower or pink lady's slipper, *C. acaule*.

Zelmer is studying the showy lady's slipper — and several cultivated Asian and South American relatives — to determine the effects of various micro-organisms. Every two weeks in late winter, she and undergraduate assistant Orié Berlasso assessed flats of seedlings laced variously with a single fungal species, one species of blue-green algae, one of two kinds of bacteria, or a combination of these organisms isolated from the roots of wild *C. reginae* — 13 different treatments among 650 pots.

Based on her microscopic analysis, Zelmer says symbiosis does occur with the fungus and that bacteria do colonize the surfaces of the plant roots. To see what effect the organisms might have, she will assess such variables as weight and root and shoot lengths.

Her findings might help in perfecting propagation and husbandry techniques used by nurseries to grow lady's slippers and other orchids.

"If Carla can show that you can grow a lady's slipper orchid from seed in sterile culture, reintroduce the right organisms when removed from culture and get good survival, there is a market waiting," says Peterson. Tropical orchids fetch an average \$35 a plant, with some worth \$100 or even \$200.

Helping growers develop a reliable source of plants might stem poaching by would-be gardeners, says Zelmer. Although plants taken from the countryside often bloom a year later, they seldom last beyond three years — wild lady's slippers are quite long-lived — without the right conditions for symbiosis.

"You're not just moving the plant, you're moving the other organisms," she says.

Zelmer, who has been invited to speak at the 16th World Orchid Conference in Vancouver later this month, stresses that nurseries and garden centres themselves might unwittingly purchase plants or divisions of specimens that were

poached from the wild.

"The growers are not knowingly doing it. If you see large, showy plants, they were probably not propagated. Those that are propagated are offered for sale while fairly small due to the time involved in raising them. I think it's important to ask questions so that maybe nurseries will start asking their suppliers. I've been told that members of orchid societies have been approached by people wanting to buy any *Cypripedium* species they could get their hands on. There's strong pressure to poach them."

If more people started growing native orchids from seed and offering them for sale, fewer people would be tempted to dig native orchids from the wild, says Allan Anderson, a lab co-ordinator in CBS who propagates and sells 25,000 orchids a year as a home business.

Although naturally growing orchids require fungal invasion before germinating, Anderson says many of Ontario's native orchids can be grown in culture without the symbiotic fungus.

"The big problem is the difficulty of planting them in soil after they have been grown under sterile conditions, because they often become contaminated by unwanted fungi. If Carla can isolate symbiotic fungi, bacteria or algae that will protect the seedlings at the planting stage, there will be fewer losses."

Her work might also help researchers attempting to re-establish species in their natural habitats. In Ontario, the only lady's slipper listed as endangered is the small white lady's slipper or *Cypripedium candidum*. But that doesn't mean other species remain unthreatened. The problem, says Peterson, is that no one has collected enough information about numbers and distribution to determine their status. "The filing of a status report depends on a group to go out and do it," he says.

BY ANDREW VOWLES

This September, the Central Ontario Orchid Society will hold its annual show at Guelph for the first time. For more details, call Kate Stuttford at 836-4321 or Richard Cote at Ext. 4375.



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HEALTHY, WEALTHY AND WHY?

"Can it be true that when we say we feel sick every time we hear of Bill Gates getting even richer, we mean it literally?"

BY BRIAN FERGUSON

THE RICH ARE DIFFERENT from you and me — they're healthier. Or perhaps it's more accurate to say the poor are sicker; that's a matter of some debate in the literature. What's not a matter of debate is the existence of what is referred to as a socioeconomic gradient in health. Regardless of the measure of health status used and regardless of the country being considered, higher income tends to be associated with better health. In North America, the difference between being at the upper and lower ends of the socioeconomic scale seems to translate on average into a difference in life expectancy of about eight years for men, four for women.

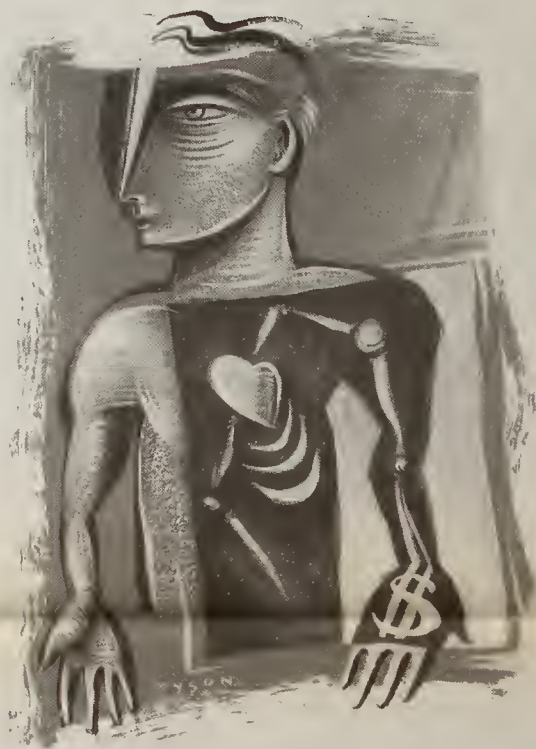
I don't want to seem to be suggesting that a socioeconomic gradient in health is new, because it's not. Historically, its existence in most countries has been well known. It's also well known to have existed across countries; there is a very clear relationship between a nation's average per capita GDP and various measures of health, most notably life expectancy and infant mortality. The relationship is a fairly dramatic curve, with life expectancy rising rapidly as average income rises until a per capita GDP of about \$5,000 US is reached, after which it levels off to such a degree that there's no longer any discernible relationship between per capita income and health measures across countries. Basically, for those countries whose GDP per capita exceeds \$5,000 US, the international comparisons show no link between average income and health status.

That's not to deny the effects of severe poverty on individual health even within rich countries. Most observers, however, thought the relationship between income and health in the developed countries was a step function. If you were on the bottom income step, your health was going to be very bad, but it wouldn't take much of an increase in your income to make you as healthy as the richest of your country's citizens. Furthermore, it was assumed that part of the remaining gradient was due to the poor having limited access to health care. Put a national health insurance system in place, and that problem would be pretty much eliminated. Any remaining link between poverty and ill health would be a consequence of the existence of outlying pockets of poverty — native reserves, for example — where basic medical care was lacking because providers wouldn't live there. And, it was hoped, those problem pockets could be dealt with by targeted programs designed to get providers to where they were most sorely needed.

In fact, by the early to mid-1970s, the focus was on the detrimental health effects of having too much income. North American studies of the time seemed to find a negative relationship between income and health, at least at the very top, apparently associated with the type-A characteristics assumed to be needed to reach the top, and the unhealthy lifestyle that seemed to go along with being well-off.

It came as something of a disappointment, then, when researchers discovered that they were still finding detrimental health effects of low income. It came as a real surprise to some to discover that the relationship wasn't a step function after all, but continuous. It wasn't a matter of there being one threshold such that if your income was below this critical level, you would be unhealthy, and if above it, you'd be healthy. Measures of health status were found to improve steadily as income increased, so that even in income ranges well above the poverty line, higher income was associated with better health.

At that point, research began to focus on health-related behaviours. After all, it's well known that some health problems are directly related to behaviour. There's no particular mystery underlying the fact that lung cancer now kills more Canadian women annually than breast cancer does, especially given that age-adjusted breast cancer mortality rates have remained pretty constant since the 1950s. In fact, in the mid-1980s, one author



ity estimated that some 80 per cent of premature deaths were directly related to health behaviours, primarily smoking and bad diet. Once it had been established that unhealthy behaviours tended to be concentrated among the lower-income groups, the matter seemed to be settled.

Just to take one simple example, before the appearance of reports linking smoking to cancer in the 1950s and 1960s, there was no socioeconomic gradient in smoking behaviour and no gradient in smoking-related deaths. After those reports began to appear, the propensity to smoke, which had been rising steadily through most of this century, suddenly headed down-

"THE EPIDEMIOLOGISTS CONCLUDED THAT THERE WAS SOMETHING ABOUT POSITION IN THE PECKING ORDER THAT HAD A DIRECT EFFECT ON HEALTH."

wards. It didn't decline across the board, however. The propensity to smoke declined rapidly among the better-educated, higher-income groups, but only drifted down gradually among the lower-income, less-educated groups. The upshot is that smoking became a low-education, low-income phenomenon, and a socioeconomic gradient appeared. Even in things like drinking behaviour, higher income has tended to be associated with drinking wine and lower income with drinking beer, and recent evidence has suggested that a little wine for thy stomach's sake may also be good for your heart.

So that seemed to be that. The socioeconomic gradient in health was a consequence of behaviour. Furthermore, much of the gradient in bad health habits was related to education. So much so that perhaps the link to income was a red herring; higher educational attainment was associated with better health habits, and having more education tended to mean having a higher income, so perhaps the thing that mattered was education — both specific, getting the current knowledge about what

kinds of behaviour were good and bad for your health out to the broader population, and general, giving the population at large the tools necessary to assess new findings about health that might emerge in the future.

There was even evidence on the potency of education in those cross-national studies of education and health. Compare two poor countries, both with the same level of per capita income. In general, the country with the better health outcomes would be the one whose female population had the highest rate of completion of elementary education (male education didn't seem to help anything much). So that was that, and if we wanted to eliminate the gradient in health, we had to do it through education (a notion that rather appeals to educators, of course).

And then came Whitehall. Or specifically the Whitehall studies of health behaviours, which tracked death rates among British civil servants through the 1970s and '80s. What the Whitehall researchers discovered was that, as expected, there was an income-related gradient in health among civil servants, with the higher-income groups having lower death rates over time. They also found the expected gradient in behaviour, with poorer health habits being concentrated among civil servants in the lower grades and declining remarkably steadily as you moved up the ranks. Like deaths, bad health behaviours didn't show a step function relationship, but rather tended to decline smoothly as income rose.

Then they found something else. Before adjusting for income-related differences in behaviours, the ratio of heart disease death rates between the lowest- and highest-income classes of civil servants was four to one. After adjusting for behaviours, it was 2.6 to one. Sixty per cent of the gradient was still there after you had pulled out the effects of behaviours.

The Whitehall epidemiologists concluded that although behaviour played a role, there was something about position in the pecking order that had a direct effect on health. Something that made the people at the top healthier even than people one step down the civil service ladder from them, and something that, the Whitehall researchers suggested, was a consequence of the simple fact of being at the top. One proponent of this view has gone so far as to reverse the 1980s figures and suggest that only 20 per cent of premature deaths are behaviourally related and 80 per cent are directly related to socioeconomic gradient.

The Whitehall results also prompted a re-examination of the aggregate-level data in and between developed countries, and a number of researchers now argue that there's evidence that income distribution matters — that even holding average income constant, people who live in countries where income is more evenly distributed tend to be healthier than those living in equally well off countries where income is less equally distributed. American research (and there is some evidence of the same pattern in Canada) suggests that inequality of income distribution in U.S. states is associated with health. States with more equally distributed incomes tend to do better on most broad measures of population health.

The punchline of the story is the familiar academic one that more research is needed. Can it be true that when we say we feel sick every time we hear of Bill Gates getting even richer, we mean it literally? The chief gap in the literature to date is a convincing explanation of the mechanism involved. Still, to anyone who tends to look for policy implications in any piece of research, there seems to be a pretty good argument that, whatever may be going on at the upper end of the income distribution, as we move down the income scale, health policies and income-support policies just might be two terms for the same thing.

Prof. Brian Ferguson is a faculty member in the Department of Economics.

FOR THE BIRDS

Childhood passion turns into vocation for OVC technician

By GAYLE ANDERSON

AS A CHILD, Becky Atkinson was always trying to help injured animals, and she knew at a young age that working with animals was her calling. As an adult, she has gone from helping creatures in her backyard to helping some of nature's most impressive species. Atkinson is the head avian and exotic veterinary technician at OVC's Veterinary Teaching Hospital and is executive director of the Wild Bird Clinic.

It was her interest in wild animals that first brought her to U of G to earn a B.Sc. in wildlife biology. She graduated in 1984 and joined the staff of OVC in 1989. She received her registered veterinary technician (RTV) certification in 1992.

Atkinson's work in the hospital is focused on the Wild Bird Clinic, where her exotic animal specialization and responsibilities cover a sweeping range of activities. As an RTV, she can be found using her skills in activities such as anesthesia and radiology, assisting in surgery or helping out with client appointments. She also lectures and instructs labs around the province and in the United States, helping to educate students in veterinary technician programs at technical colleges, others in the veterinary field and the public on birds and exotic animals.

Variety is constant in her job, which Atkinson says is the best thing about her career. In fact, she likes every part of her work. That's evident when you tour the aviaries with her. As she enters the cage of Einstein, a great horned owl, she smiles and talks sweetly to the bird, who in turn rewards her with soft hoots of welcome. A permanent member of the Wild Bird Clinic, Einstein was raised by humans before coming to the clinic and, because of imprinting, thinks she is closer to the human species than her own, says Atkinson. This can actually make the technician's job more difficult because Einstein can become aggressive towards humans during breeding season.



Understanding the quirks of a wild animal's nature is an important part of Atkinson's job — a job that can be dangerous at times. She is, after all, dealing with birds of prey that use beak and talon as hunting tools and weapons of defence.

"Because the wild bird and exotic area is so specialized, I really need to know my species and I end up doing pretty much something of everything. You have to be very comfortable in knowing how to handle a lot of different animals."

Dealing with wild birds gives Atkinson the opportunity to work with interesting patients, which sometimes arrive at the hospital under unusual circumstances. In February, for example, a great grey owl was brought to the clinic with a fractured right ilium (a bone in the pelvic area). The mature owl had been

hit by a bus in Streetsville — an unusual occurrence because it's extremely uncommon to see this species anywhere in southern Ontario.

"A great grey owl in the Toronto area is totally out of place," says Atkinson. For this reason, the Streetsville owl created a great deal of interest among birdwatchers, and this may have been what saved its life. A concerned citizen retrieved the bird after it was hit and took it to a paramedic, who then sent it to a bird-watching club. The club brought the owl to OVC.

Atkinson reports that the prognosis for the patient is good. The treatment for the fractured bone is several weeks of quiet cage rest, then supervised exercise in a flight cage. Once recovery is complete, the bird will be released. "At release time, we will find the owl's home range and release it there," she says.

Exotic veterinary medicine is a relatively young field, and that means it's important to keep up to date through courses and conferences, says Atkinson. "It's changing all the time, and every year we find out new information."

The RTV often gets asked advice about becoming a veterinary technician, especially in her specialized field. "A person shouldn't jump into this job without having some idea of what it's all about," she says. Her best piece of advice is to spend time in a veterinary clinic and gain experience working with animals.

Atkinson was rewarded for her dedication to her profession in February, when she was presented with the Veterinary Technician of the Year Award from the Ontario Association of Veterinary Technicians. The award recognizes excellence in promoting the veterinary technician field to the general public.

"This award makes me proud that I am doing something for the veterinary technical community," says Atkinson. "But all the technicians at the Veterinary Teaching Hospital deserve an award because they all excel in their work."

PHOTO BY MARTIN SCHWABE

It's All in How You Look at It

Department of Physics display explores art and science of anamorphic images

*"For sorrow's eye, glazed with blinding tears,
Divides one thing entire to many objects;
Like perspectives which, rightly gaz'd upon,
Show nothing but confusion — eyed awry,
Distinguish form!"*

William Shakespeare, *Richard II*

THINK OF THE impossibly thin, elongated reflection that might confront you in a funhouse mirror, and you have some idea of the anamorphic images that first intrigued retired physics professor Jim Hunt years ago. Hunt has blended his research interest in light and optics with his affinity for art to turn this artwork-cum-diversion into a fascinating exhibit in his department's display case across from Room 105 of the MacNaughton Building.

Anamorphic artists play with perspective to create a distorted image that appears normal only when viewed from the correct angle or with the aid of curved mirrors (anamorphosis is Greek for "transformation"). The technique was discovered by Renaissance-era artists who were exploring the new horizons of visual perspective and the borders between reality and perception, says Hunt, whose display includes the earliest known anamorph, a child's face

drawn by Leonardo da Vinci.

No mere parlour game this: in the 16th and 17th centuries, artists used the funhouse-mirror effect of anamorphosis to explore politics, religion and philosophy — sometimes for subversive ends. Thumbing through *Anamorphic Art*, an authoritative text on the topic written by French art historian Jurgis Baltrušaitis, Hunt points to a trompe-l'oeil picture of Charles I painted after his execution in 1649.

"It was a way for Royalists to have a portrait of Charles I in their house and be fairly secure from prosecution," says Hunt.

His display includes one of the most famous anamorphic images, which appears in a 1533 painting by Hans Holbein called *The Ambassadors*. At first glance, the depiction of two distinguished-looking diplomats posed before a cabinet containing musical and mathematical instruments appears normal. Viewed from one side — as gallery patrons might have seen it in a parting glance — an odd-looking blur in the painting's foreground morphs into a skull. Pointing out that the artist's name derives from *hohle Bein*, meaning hollow bone, Hunt says the image imparts an ironic twist that serves as "a reminder of the vanity of all earthly things. It

was a moral tale."

He points out a 1535 woodcut by Erhard Schön, a student of Albrecht Dürer. Like peering through a rain-smeared windscreen, an initial look reveals an odd landscape masked beneath a swirl of shapes reminiscent of a child's fingerpainting. Viewed from the correct angle, the piece depicts the heads of four historical figures superimposed against events and surroundings connected with them.

Of the techniques used by artists to create these images, one common method was to draw a normal picture, perforate the outline of the drawing, then place the page at right angles and allow light to shine through the holes on to the new drawing surface. The elongated image could then be traced and painted.

Later artists experimented with mirrors of various shapes to introduce a 3-D effect to their works. In one ambitious example in Hunt's collection, British artist Henry Kettle used a reflecting pyramid to reassemble four misshapen faces into a single portrait. In another, a cylindrical mirror pulls together an amorphous red and white swirl to show the Coca-Cola logo.

"It's an optical puzzle," says Hunt. Indeed, by about the 18th century, anamorphic images

had come to be used more as diversions than fine art. During the 19th century, they became the domain of children's games, many collected in a book called *The Magic Mirror: An Antique Optical Toy*.

Today the tricks of anamorphism are used in creating wide-screen movies, in which an anamorphosed image is squeezed horizontally to fit the standard film frame, then projected through an anamorphic lens on to the screen. The same idea is used in elongated images painted on crosswalks and bicycle lanes that appear normal from the perspective of an approaching cyclist or motorist.

His imagination piqued years ago when he read an article about the images in an art magazine, Hunt assembled the display recently as one of his retirement projects. Having created simple anamorphic images of his own, he enlisted the help of fellow physics professor Bernie Nickel in working out the complicated equations for plane, conical and cylindrical anamorphs. The mathematics has allowed Hunt to analyse 17th-century construction methods that used tricks of perspective, and he is now writing up the results for a paper.

By ANDREW WOLVES

Withstanding the Test of Climb

Students will cap four years of rock climbing and alpine mountaineering by tackling Canada's highest peak

FRESH FROM WRITING their final exams this spring, two graduating U of G students will face one of their toughest tests yet with a planned climb of Canada's highest mountain.

Jeremy McIvor of Ottawa and Dan MacLean of Calgary will strap on their alpine mountaineering gear next month to tackle Mount Logan in southwestern Yukon.

"It's a graduation present to ourselves from ourselves," says McIvor, who is completing a biology degree with a minor in nutritional sciences. MacLean is finishing a B.Sc. (Agr.) in horticultural science.

The ascent will be the highest the pair has attempted during four years of rock climbing and alpine mountaineering. Says McIvor: "I was interested in getting into altitude climbing, like the Himalayas, and this is a stepping stone to that."

Some stepping stone. At 5,959 metres (19,551 feet), Mount Logan is fully 7,000 feet higher than their previous high-climbing mark and puts them into the lower end of "extreme altitude" ascents.

The mountain belongs to the St. Elias Range in Kluane National Park. Home to some of the highest peaks in North America, the park is often called Canada's mountaineering playground. Mount Logan was first climbed in 1925 by American mountaineer A.H. McCarthy.

The mountain receives one of Canada's highest annual snowfalls and is the largest non-polar icefield on the planet. Among the physical hazards the pair will encounter: crevasses lurking beneath a treacherous snow crust, sheer vertical faces, gale-force winds that can whip around cliffs at more than 100 kilometres an hour, and temperatures that will average about -20 C and

could dip to -40 C—even during the most hospitable month for climbing.

Before attempting the ascent, climbers must acclimatize themselves to the thinner air—oxygen density near the peak is only about half that at sea level—to avoid such life-threatening ailments as acute mountain sickness and high-altitude pulmonary and cerebral edemas. Most expeditions preparing to tackle Mount Logan are flown in to a base camp, where climbers spend about three weeks getting used to conditions at about 8,000 feet above sea level.

"We've both been at around 12,000 feet without a problem," says MacLean, referring to ascents of summers past, including last year's climb to that altitude on Mount Temple in the Canadian Rockies. The two plan to acclimatize themselves by snowshoeing the roughly 150 km to the base camp across the Hubbard and Kaskawulsh glaciers and by making a 3,928-metre (12,884-foot) climb of nearby Mount Queen Mary.

"We like to operate on a shoe-string budget," says McIvor.

Not that they plan to cut corners with their equipment, most already in hand from previous outings. But by hiking to the base and shopping carefully for provisions, they figure the trek will cost about \$1,000 each, compared with the roughly \$5,000 charged for guided, fully outfitted expeditions.

Besides costing less than a flight in, the 10-day snowshoe trip will satisfy their purist instincts. They like to travel quickly, without encumbrance. Each will pack about 125 pounds of provisions and equipment, using sleds, including a GT Snoracer. "We're usually blowing by other climbers," says MacLean.

Following two days of further acclimatization and strengthening at the base camp, they will set off on a planned 12-day expedition to the summit and back. During their ascent, they will follow the mountaineer's dictum of "climb high-sleep low"—another concession to avoid altitude sickness. After pushing to reach each day's target altitude, they will backtrack slightly to spend the night in their bivouac sacks at a lower height.

Their descent will be a little more precipitate, as they plan to toboggan down parts of the slope on the Snoracer. "I hiked a GT up the Charlton Unwin glacier in Jasper, Alberta, last summer," says McIvor. "What took hours to ascend was a matter of minutes on descent. We won't be GT-ing on the steep and treacherous areas of the ridge, but among the other parties at base camp, I think we'll be

pretty popular for recreational fun time."

During their climb, the pair will be roped together for safety. "We'll be joined at the hip for a month," says MacLean. "We'll even sleep tied together in our bivouac sacks."

They've been attached since first year, when McIvor dragged his residence mate to a meeting of the U of G Climbing Club. Numerous outings later, MacLean says he and McIvor are "really good complements. That's probably why we're so successful—the way we think together. We make good decisions."

McIvor says he's attracted to mountaineering by the element of danger and by the test of personal endurance and fortitude: "You must have faith in yourself to trust your life in your own hands."

"And faith in your partner," MacLean chimes in. "It's really es-

sential to know that your partner is competent."

Rock climbers rate ascents on a combination of the vertical pitch or slope and the degree of climbing difficulty. "If you're 5-12, 5-13, you're in climbing magazines," says MacLean. Adds McIvor: "We're around 5-10, 5-11. This trip to Logan is alpine climbing with components of rock climbing, ice climbing, mountaineering."

Under a different grading system used by mountaineers, their climb gets a three on a scale of one to six for expeditions flown in to a base camp.

Beyond the horizon for the pair: yet other peaks. They plan to spend a weekend in August climbing Mount Robson, the highest peak in the Canadian Rockies at 13,000 feet, and are itching to get their hands and feet on Chile's Aconcagua Mountain.

BY ANDREW VOWLES

Distance Education Focus of Project

Continued from page 1

the courses, and will visit Guelph to receive additional training and information.

Egypt faces serious limitations on its farming capabilities, says Prof. Jana Janakiram, Rural Extension Studies, who is involved with both CIDA projects. Only about 10 per cent of Egypt's land is non-desert and can be cultivated, so resources must be managed carefully, he says.

"The people there are very capable. They just need added information and a broader spectrum."

The Russian program will focus on distance education. It was initiated by Kandiah Anandarahaj, a research associate in the Department of Plant Agriculture, after a visit to

Russia in 1995. Anandarahaj observed that Russian farmers are having difficulty adjusting to the "new Russia."

"Farmers have always received information and been told what to do, but they were never asked to make decisions," he says. "Now, they need to know what to do to make their farms and production profitable for their survival."

U of G faculty will work with Russian People's Friendship University to develop training programs for students, agricultural support personnel, farm managers and farmers. They will also create distance courses in farm management, marketing and productivity for people cur-

rently working in the field. Russian People's Friendship University will contribute \$200,000 of in-kind support.

Co-operative development projects have a long and distinguished history at U of G, says Prof. Jim Shute, director of the Centre for International Programs.

"They have contributed powerfully to our internationalization, as faculty and participating students bring cross-cultural experience back into the U of G learning environment," he says. "I am confident that the two new projects in Egypt and Russia will continue that important tradition."

BY LORI BONA HUNT

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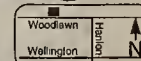
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Take a Risk with PERIL

Game encourages young people to weigh the consequences of their actions



On hand for the official Canadian launch of the game *PERIL* are, from left, Prof. Keith Solomon, Environmental Biology; project co-ordinator Donna Warner; Warren Libby of Novartis Crop Protection Canada; president Mordechai Rozanski; and Prof. Herman Boermans, Biomedical Sciences.

PHOTO BY MARTIN SCHWALBE

IMAGINE YOU'RE a game-show contestant, living on a "risk-free" planet somewhere in the universe. You're competing against two other players for an all-expenses-paid vacation to Earth. To win, you must show you know how to avoid high-risk activities you will encounter on Earth.

You start the game with a "score" or life expectancy of 70 years. The game-show host asks you to select activity options with the least risk found in home, work and recreational environments. Your lifeline decreases if you don't select the least risky option found in these earthly environments. The player with the longest lifeline at the end of the game wins.

The game is called *PERIL* (Project Earth Risk Identification Lifeline) and it actually exists here on Earth, thanks to U of G faculty and students. The interactive CD-ROM computer game was designed to encourage young people 12 to 16 to weigh the consequences of their actions when making lifestyle choices.

"Misconceptions of risk can result in injuries or fatalities that, in

some cases, may have been avoided if risk assessment knowledge were understood and applied," says Donna Warner, project co-ordinator in the Canadian Network of Toxicology Centres. Prof. Keith Solomon, Environmental Biology, director of the Centre for Toxicology, also played a key role in developing the game.

PERIL had its official Canadian launch April 19 at U of G. Warner and Solomon presented the game at a media event attended by Warren Libby, president of Novartis Crop Protection Canada, one of the project's primary sponsors, and president Mordechai Rozanski.

The game originated two years ago when some of Solomon's toxicology students took on the challenge of writing a draft game script that would educate young people about life's varied risks. The game aims to increase awareness of misconceptions about health risks and to encourage informed decision-making. The project development team later expanded to include Solomon, Warner and other faculty and students.

"We hope to attract interest from

education and health professionals who see a fit for *PERIL* in their outreach and educational programs," says Warner. "We would like to see this game put into the hands of as many teens as possible."

The game addresses 120 common activities that carry varying degrees of risk. In addition to the game, the CD-ROM includes a complementary classroom guide, complete with teaching exercises, and a toxicology educator's resource guide.

PERIL was enthusiastically received by teacher groups in the United States who previewed the resource during the National Science Teachers' Association Convention in Boston in March.

The game is available for \$10 plus shipping and handling. Ordering details are available on the Canadian Network of Toxicology Centres' Web site at www.uoguelph.ca/cntc/. Send questions on the content of *PERIL* to Peril@tox.uoguelph.ca.

Besides Novartis, the game is sponsored by the Donner Canadian Foundation and Canadian Network of Toxicology Centres.

BY LORI BONA HUNT

Safety Initiatives Receive Support

Grants aim to improve safety of women on campus

Thirty-four initiatives have received support from this year's Women's Campus Safety Initiatives Fund, sharing \$50,000 from the Ministry of Education and Training. Provided annually since 1991, the funding supports existing programs, services and departments that deal with issues of women's safety, oppression of women and violence against women.

This year's grant and surplus money from previous years were administered by the Human Rights and Equity Office and dispersed through a public grants process with the assistance of the Women's Campus Safety Initiatives Committee. The committee includes representatives from the Central Student Association, Graduate Students' Association, Women's Resource Centre, Student Housing Services, Counselling and Student Resource Centre, Security Services, Centre for Students with Disabilities, faculty and the Human Rights and Equity Office.

This year's grant recipients aimed to fulfil one or more of the following goals: to improve the safety of women studying, working and living on campus; to educate and raise awareness about women's issues; to provide ongoing support to University constituents who play an integral role in improving the campus climate for women and women's safety; and to provide skill-based training for women.

Based on the grant criteria, the committee identified the importance of support for women who study or work outside regular business hours, women in non-traditional fields and groups of women who experience the multiple jeopardies of heterosexism, racism and ableism.

The committee provided funding for the following initiatives:

- Interhall Council — \$1,100 for a workshop to facilitate understanding about sexual harassment and stalking and \$3,000 to produce wallet-sized cards with emergency telephone numbers for the University community. In addition, East Hall Council received \$12,000 for improved lighting around East Residences.
- Women's Resource Centre — \$2,000 for fix-it workshops on bicycle repair and car maintenance; \$2,000 to improve the resource collection to address the needs of marginalized women; \$4,000 for a lecture series on issues affecting women of colour; \$1,548 for a computer to catalogue the resources for women; \$1,000 for a technology workshop to introduce women to a non-traditional field; \$4,142 to produce a video to raise awareness about the needs of marginalized women; \$3,000 for outreach to the community to increase awareness about services and resources available for women; \$2,500 for education and raising awareness

about safe sex practices; and \$3,000 to provide self-defence training courses to women, women who identify as queer, women with disabilities and women of colour.

- Couple and Family Therapy — \$5,000 to educate therapists, service providers and the campus community about issues of violence against women, women of colour, women who identify as queer and aboriginal women.

- Central Student Association — \$1,000 for raising awareness and to provide training on financial issues to women.

- Human Rights and Equity Office — \$5,000 for programming to raise awareness about women's issues on International Women's Day; \$5,500 for anti-racism resource pamphlets; \$5,500 to increase awareness of sexual harassment and violence against women in sports; and \$7,500 to produce advertisements that promote women's safety and equality on campus.

- Centre for Students with Disabilities — \$1,545 to buy alert master systems for women with a hearing disability.

- Men Against Sexual Aggression, sponsored by the Wellness Centre — \$3,495 to train facilitators and provide educational programs for men about sexual aggression.

- OPIRG-Guelph — \$4,000 to install a ramp to provide access to the resource centre.

- OUTline — \$1,835 for telephone and paging expenses to continue to provide telephone support to lesbian, gay, bisexual and transgender/transsexual people.

- First Response Team — \$3,000 to buy equipment and for education on women's needs.

- School of Landscape Architecture — \$2,300 for safety improvements to the Landscape Architecture Building to address the needs of women working after hours.

- School of Rural Planning and Development — \$566 to improve safety for women working after hours.

- Department of Athletics — \$1,593 to create a safe and supportive working environment for women.

- Teaching Support Services — \$500 to address the needs of female students working after hours.

- Counselling and Student Resource Centre — \$500 for a co-ordinator to develop information related to women's emotional, psychological and mental health issues.

- Raithby House Drop-in/Contact Health and Safety Line — \$2,000 for safety improvements to Raithby House and to address the safety needs of volunteers.

- Women's studies program — \$701 to support a lecture on legal issues related to violence against racial minority women.

SENATE REPORT

Continued from page 2

participating in them. This, in turn, could limit the learning opportunities available to students. There was also concern that trying to limit costs might result in less attention being paid to duty-of-care issues such as student safety and security.

After lengthy discussion, it was decided to send the motion back to SIC for further assessment and to bring it forward at the October meeting of Senate, when students have returned for the fall semester and have had time to discuss SIC's findings.

AD HOC COMMITTEE REJECTED

Senate rejected a proposal from Student Senate Caucus to establish

an independent ad hoc committee to study the issue of fee differentiation. Caucus co-chair Kirsten Mercer said the goal was to create a committee that would study differentiation as its sole mandate and could have wider student representation than other University committees currently have.

This would help ensure that the study was comprehensive, that the student voice was heard and that the results were acceptable to students, she said.

Prof. Glen Van Der Kraak, Zoolo- gary, chair of SCUP, expressed concern about creating another ad hoc committee, one that would duplicate

the efforts of other committees such as SCUP, the Student Budget Advisory Group, the Enrolment Management Committee (EMC) and the President's Budget Advisory Group.

Prof. Alastair Summerlee, acting associate vice-president (academic) and chair of EMC, said the motion was premature because EMC has not yet discussed what process will be used to involve the community in discussions of the differentiation issue.

He said the committee proposed by Student Senate Caucus would be more appropriate as a subcommittee of EMC.

CORRECTION

In the April 7 issue of *@Guelph*, an employee notice about photo identification cards was mistakenly printed on the classifieds page.

@Guelph regrets any confusion or inconvenience this may have caused.

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CSRC Renovations Set for May

But it's business as usual for student service providers

During the first week of May, the second — and final — phase of renovations to the south half of Level 3 of the University Centre will be completed.

In January, half of the Boo Bar was renovated to create a multipurpose space for the Centre with Students with Disabilities, Career Services and Co-operative Education Services.

In May, offices will be rearranged and additional programming spaces will be created.

The renovations are part of a larger-scale plan to provide space for the new Learning Opportunities Program (LOP) funded largely by a grant from the Ministry of Education and Training's Learning Opportunities Task Force, says Andre

Auger, director of the Counselling and Student Resource Centre.

"When the dust settles, clients will discover an integrated reception station for the Centre for Students with Disabilities and LOP, a larger, more accessible Career Centre, and more efficient reception stations for Career Services and Co-operative Education Services," he says.

"There will also be better facilities for proctored exams for students with accommodations, as well as improved interviewing facilities for co-op and regular employment interviews."

During the renovations, all services will remain open but in different settings, says Auger. The Connection Desk will be the temporary home for staff from the Counselling

Unit, Career Services and the Centre for Students with Disabilities. Although the Career Centre will be closed — along with the job boards — there will be a binder at the desk with the most recent job postings, and staff can be reached by phone.

Counsellors will be seeing clients out of offices provided by Student Health Services. Leadership, Service and Involvement staff will work out of Raithby House. Learning and Writing Services staff will be accessible through the Connection Desk.

Co-operative Education Services will operate a limited service out of a fourth-floor office and will continue to receive co-op positions and provide information to students still seeking a work term for the summer semester.

Make the Connection

High school students get a glimpse of life at U of G

Several hundred Ontario high school students are expected on campus April 30 for the first-ever "Guelph Connection" conference.

The goal is to give students who applied to U of G another opportunity to visit campus before they decide where to attend university. The deadline to accept offers of admission is June 1 this year, a month earlier than in the past.

The conference will allow participants to learn more about life as a university student and experience university-style lectures, says Susan Vercruyse, assistant registrar, student recruitment. "Participants will have the opportunity to network with other students considering Guelph as their home away from

home in September."

The day-long conference will include a welcome address by president Mordechai Rozanski, a presentation by the Office of First-Year Studies, campus tours and morning and afternoon sessions led by faculty and staff.

The wide-ranging sessions will focus on U of G research and topics of interest to students. Subjects range from "Surviving the First Year at University" and "Hospitality Services: This is Not Your High School Cafeteria" to "The Science Behind Potato Chips" and "Managing Wildlife: Why Study Zoology."

Campus offices and programs such as the Human Rights and Equity Office, Co-operative Education

Services, the Athletics Department and the Centre for International Programs will also offer sessions.

"There's a lot of interest from students," says Laura Beattie, a liaison officer for recruitment events. "Many are overwhelmed by the prospect of attending university and what the whole experience will be like. This will give them a sense of what to expect and how to deal with the transition to university."

Admission Services will also welcome secondary school teachers, guidance counsellors and school administrators to campus April 23 for the professional development conference Update '99. It's the 17th year for the conference, which features sessions led by faculty and staff.

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OAC Anniversary to Bloom in Campus, City Flower Beds

Riverside floral clock will feature U of G theme for first time

U of G and the City of Guelph have chosen a colourful way to recognize this year's 125th anniversary of OAC — planting floral display beds on and off campus with versions of the anniversary and OAC logos.

This spring, the Grounds Department will use carpet bedding in the raised bed near the University entrance at the corner of Gordon Street and Stone Road to plant the 125th-anniversary logo, along with the words "University of Guelph" and "OAC 125." Grounds staff will make the logo more visible by elevating the bed and erecting a retaining wall behind it. They will use selected plants in appropriate colours, including varieties of begonia, echeveria, santolina, alternanthera and irises, as well as aquarium stone.

In a nod to this year's anniversary, the City of Guelph plans to in-

corporate the OAC crest in its landmark floral clock in Riverside Park. Allan Berberich, horticultural supervisor for the parks and recreation department, says this is the first time the city has featured a U of G theme in the floral clock.

"The University is a big part of Guelph and obviously it's one of the big parts of spreading Guelph's name," says Berberich, who sits with U of G's manager of landscape maintenance, John Reinhart, on the grounds committee of the Wellington County Public-Sector Consortium.

In 1997, the U of G entrance bed incorporated the Communities in Bloom identifier. Last year's bed displayed the Ontario Summer Games logo.

Sue Bennett, OAC archivist and a member of the OAC 125th-anniversary planning committee, had suggested that the University

mark the occasion with a commemorative floral display. Planning committee co-chair Clay Switzer, a former dean of OAC, then asked the city about planting an emblem in Riverside Park.

"We promote things happening in the city," says Bennett, "so it's nice that we can promote ourselves as well. It shows the strength of the town-gown relationship."

Farther afield, the Simcoe Research Station will also use the 125th-anniversary logo this year in its main-entrance display bed.

"The University of Guelph is not just in Guelph proper but all over the province," says OAC alumnus Walter Andres, manager of the station, which studies fruit and vegetable production in southwestern Ontario as part of the Department of Plant Agriculture. "It's a chance to promote the University in this part of the province."

TSS Conference Will Explore Changing University Landscape

TEACHING SUPPORT SERVICES and the College of Social and Applied Human Sciences are sponsoring a conference on "The Changing University Landscape: Implications for Faculty Work Life" for U of G faculty, future faculty and staff May 27 from 9 a.m. to 5 p.m. at the Arboretum Centre.

Keynote speakers are Alan Guskin, professor and former chancellor of Antioch University, and Robert Diamond, director of the In-

stitute for Change in Higher Education at Syracuse University.

Guskin's topic is "Facing the Future: Transformational Change and the Faculty." He will address the concerns of faculty about quality of life in the face of the pressures transforming North American colleges and universities.

Diamond's talk, titled "Institutional Priorities and Faculty Rewards: Bringing Sanity into the System," will focus on the transfor-

mation of Syracuse to a student-centred research university.

Cost is \$50 for on-campus registrants, \$90 for off-campus. To show their support for the conference, deans and unit heads will cover the costs for all members of their colleges and units who wish to attend.

Registration deadline is May 10. To register, contact Jeanette Dayman at jdayman@uoguelph.ca or Ext. 2468 or register online at www.tss.uoguelph.ca/tli.html.

Nightingale New Dean

Continued from page 1

ing society," says Campbell. "From the beginning, he has seen the enormous opportunities that this union will create for faculty and students and has had a vision for how its combined strength will enable the University to influence public policy and service in meaningful ways. Under his leadership, the Deans' Council has generated a remarkable flow of new initiatives."

Nightingale says his personal mandate is to help the new college grow and strengthen academic programs, extend research programs in collaboration with partners, generate resources to support learning and research and increase the profile of CSAHS and its activities.

Several initiatives are already under way, including new graduate programs in leadership studies by distance education and applied human nutrition in a one-year residential format. New undergraduate

programs being planned include a collaborative program with community colleges in criminal justice and public policy, and B.Comm. majors in public management, human resource management and tourism management.

Faculty and graduate students in the former colleges had a strong record of basic and applied research in their own disciplines and in interdisciplinary programs, says Nightingale.

"The new college provides the opportunity to further strengthen research infrastructure and increase productivity by undertaking more interdisciplinary programs in collaboration with industry and public-sector partners. One example of our potential is the new Centre for Families, Work and Well-Being."

BY MARY DICKIESON

HAVE FUN WITH HISTORY



The fourth set of questions in an OAC 125 quiz to test your knowledge of college history.

76. When did College Royal begin?
77. In what year was Farm and Home Week cancelled because of hog cholera?
78. Which dean became deputy minister of agriculture for Ontario?
79. When was the *Ontarian* first published?
80. What other name was proposed for OAC during the 1969 reorganization?
81. How many years previous to 1964 was OAC a unit of the Department of Agriculture?
82. Which dean chaired a 1987 task force on agriculture that led to major curriculum changes?
83. The enhanced partnership agreement with OMAFRA on April 1, 1997, named which agricultural colleges as part of U of G?
84. Females made up what percentage of students in the B.Sc.(Agr.) program in 1974 and 1978?
85. Who was the first PhD graduate of the University of Guelph (1967)?
86. When did Rob McLaughlin begin his first five-year term as dean?
87. Which college campus has a building named for former OAC president William Reek?
88. Who was the BSA graduate who became president of U of G?
89. What were the federated colleges?
90. Where did diploma students go to study when the Kemptville College program was cancelled during the Second World War?
91. When was the University of Guelph established?
92. When was the Agricultural Research Institute of Ontario formed?
93. Who was the first dean of OAC?
94. In what year did OAC faculty transfer to the new College of Biological Science?
95. When was the first mainframe computer installed on campus?
96. When was the BSA degree changed to a B.Sc.(Agr.)?
97. When were co-op programs first offered in the B.Sc.(Agr.)?
98. In which college is French the language of instruction?
99. HRIO joined the University in 1997, but it was formed in 1906 by a committee chaired by which OAC president?
100. Who was head of the OAC Department of Horticulture from 1934 to 1946 while serving as director of the Vineland Research Station?

Find the answers in this listing:

Burton Matthews — 90 — OVC, OAC and Macdonald Institute as a group in transition to becoming the founding colleges of U of G — Frank Palmer — Harvey Peart — 1985 — 1925 — Ridgeway — 64 — Freeman McEwen — OAC — Manuel Marcia, Microbiology — Richard Richards — William Fossell — 1951 — George Creelman — 1959 — the 1970s — 1925 — 1971 — 1980-1981 — Alfred, Kemptville, OAC and Ridgeway — 22.2 and 35.2, respectively — July 1, 1964 — Clayton Switzer — Faculty of Agricultural Sciences — 1990 — 5.5 and 15.6, respectively — the 1950s — July 1, 1962 — Faculty of Agricultural and Biological Sciences — Lincoln Alexander — James Mills — Alfred — 1951 — 1953.

Check your answers on the OAC 125 Web site at www.oac.uoguelph.ca/OAC125 or in the next issue of *@Guelph*.

Answers for OAC 125 Quiz of April 7:

51 - 1902; 52 - students cut down large spruce trees in the area; 53 - student yearbook; 54 - Macdonald Hall; 55 - English, French & German; 56 - manual training and nature study; 57 - a talkfest and/or formal dance; 58 - Lord Bessborough; 59 - 1920; 60 - a water reservoir for fire fighting, surrounded by a rose-covered fence; 61 - Creelman; 62 - Melville Cumming; 63 - a new government in Ontario with the intention of saving money during the Depression; 64 - Christie; 65 - Wm. Garnett; 66 - Susannah Chase; 67 - two; 68 - the Trent Building; 69 - coal; 70 - a week in summer when farm families and the general public visited the campus; 71 - 1926; 72 - Wm. Kemp, Omer Lemieux, Frank Morwick; 73 - University of Toronto; 74 - Wm. Kemp; 75 - the city of Guelph planned to raise the cost of water.

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ARBORETUM

Horticulturist Henry Kock will lead woodland wildflower tours in May, covering the identification, life cycles, ecology and culture of woodland plants. The half-day workshops run in two parts May 4 and 19, with morning and afternoon sessions available. Cost is \$35. Registration and payment are required by April 27. To register, call Ext. 4110.

The Arboretum Auxiliary is looking for donations of perennials, pots (four inches and up) and trays for its annual plant sale in September. Perennials should be labelled. Donations can be dropped off at the R.J. Hilton Centre greenhouse on College Avenue East. Volunteers are needed to help with the sale. Call Andrea Appleton at 837-9622.

ART CENTRE

Verne Harrison gives an artist's talk on his exhibition "The Museum Chronicles A Post-Modern Parody" April 25 at 3 p.m. at the Macdonald Stewart Art Centre. A general gallery tour begins at 2 p.m. Harrison will also discuss his exhibition May 3 at a noon-hour recognition luncheon for art centre volunteers.

CONCERT

The Canadian Orpheus Male Choir will perform a benefit concert for U of G's ecumenical campus ministry May 13 at 8 p.m. at the River Run Centre. Tickets are \$25 and are available from the River Run box office at 763-3000 or Lucy Reid at Ext. 2390.

NOTICES

Alumni-in-Action will hold its annual general meeting and spring luncheon May 12 at 11:30 a.m. at the Arboretum Centre. Guest speaker is Donna McCaw, an Elora writer and storyteller. Cost is \$14. Registration deadline is May 6. For more information, call Carla Bradshaw at Ext. 6657 or send e-mail to carlab@alumni.uoguelph.ca.

An exhibit of photographs and artifacts illustrating the history of the Ontario Agricultural College and its relationship to Wellington County will open May 1 at the Wellington County Museum and Archives in Fergus. The exhibit will be on display weekdays from 9:30 a.m. to 4:30 p.m. and weekends from 1 to 5 p.m. until Aug. 29. It will reopen Sept. 20 at the Guelph Civic Museum, where it will run until Nov. 7.

The Ontario Ministry of Agriculture, Food and Rural Affairs will hold a conference on "Agriculture's Role in Managing Antimicrobial Resistance" Oct. 24 to 26 in Toronto. The deadline for poster proposals is May 15. For more information, visit the Web site www.gov.on.ca/OMAFRA/english/livestock/animalcare/amr/conference.html, call co-ordinator Dawn Pate at 826-3584 or send e-mail to dpate@omafra.gov.on.ca.

U of G will celebrate its 125-year relationship with the Ontario Ministry of Agriculture, Food and Rural Affairs April 30 at a reunion picnic hosted by OAC. All current and former employees of both the ministry and the college are encouraged to attend. Cost is \$10 per person; register by calling Agnes Allen in the OAC dean's office at Ext. 3076.

The Guelph Food Technology Centre (GFTC) presents technical symposiums on "Sensory Evaluation" May 10 and 11 and "Microbiology 1: Practical Food Microbiology and Troubleshooting" May 26 to 28. Also slated for May are public seminars on "HACCP: Advanced Scientific Validation and Verification" May 5 and 6, "ServSafe for the Food Industry and Food-Service Sector" May 12 to 14 and "Advanced HTST Pasteurization and Equipment Testing" May 19 and 20. Other upcoming training programs include "Technology of Bakery Production: Bread and Rolls" May 3 to 6 and "Thermal Processing: Principles and Practices in Food Preservation" May 4 to 14. For more information, call Marlene Inglis at 821-1246, send e-mail to minglis@uoguelph.ca or visit the Web site www.gftc.ca.

The Canadian Bureau for International Education will hold its annual conference Nov. 20 to 23 in Ottawa. This year's theme is "Educational Co-operation in the Americas." Proposals for sessions must be submitted by May 7 and can be faxed to 613-237-1073 or sent to conference manager Maurice Lelievre at 220 Laurier Ave W, Suite 1100, Ottawa K1P 5Z9. For more information, send e-mail to Mlelievre@cbie.ca or visit the Web site www.cbie.ca.

The Centre for International Programs (CIP) has received 1999 information from the International Association for Medical Assistance for Travellers (IAMAT). The materials include a wall immunization chart, a world malaria risk chart, current information on malaria and the IAMAT's 1999 directory, listing approved physicians and clinics around the world. The materials can be consulted in the CIP InfoCentre.

The U of G Library will operate on a reduced schedule and with limited services between semesters. From April 28 to May 2, McLaughlin Library will be open from 8:30 a.m. to 7 p.m. Wednesday to Friday and noon to 7 p.m. on the weekend. The Veterinary Science Library will be open 8:30 a.m. to 5 p.m. Wednesday to Friday and closed on the weekend. From May 3 to Aug. 16, McLaughlin will be open 8:30 a.m. to 10 p.m. Monday to Friday and noon to 10 on weekends and holidays. From May 3 to May 9, Veterinary Science will be open 8:30 a.m. to 5 p.m. Monday to Friday and closed on the weekend. From May 10 to Aug. 16, it will be open 8:30 a.m. to 10 p.m. Monday to Thursday, 8:30 a.m. to 5 p.m. Fridays, noon to 5 p.m. on weekends and closed on holidays.

SEMINARS

The Department of Pathobiology seminar series continues April 23 with adjunct professor Doug Campbell discussing "Diagnoses and Diseases in Foxes, Wolves and Coyotes in Ontario" and May 7 with Prof. Azad Kaushik explaining "Of Cattle, Men and Antibodies." The seminars begin at 2 p.m. in Pathobiology 2152.

Next up in the Axelrod Institute of Ichthyology Loaves and Fishes seminar series is a discussion of "The Russian Arctic: A Salmon Biologist's Experience" with Sarah Crabb April 27 at 12:30 p.m. in Axelrod 168.

Donald Irish of the University of Waterloo will give the Guelph-Waterloo Centre for Graduate Work in Chemistry and Biochemistry's annual seminar April 29 at 3 p.m. in Thornbrough 100. His topic is "Chemistry by Laser Light — A Retrospective."

The Department of Pathobiology presents Lorraine Sordillo of Pennsylvania State University discussing "Shifts in Bovine Lymphocyte Populations Alter Immune Responsiveness During the Periparturient Period" April 29 at 3 p.m. in Pathobiology 101. On May 3, Michael Stear of Glasgow University Veterinary School explains "The Immunogenetic Basis of Resistance to the Gastrointestinal Nematode *Teladorsagia circumcincta*" at 3:30 p.m. in Pathobiology 101.

The biochemistry seminar series continues May 13 with Ron Midura of the Cleveland Clinical Foundation explaining "Bridging the Gap in Bone Formation" at noon in MacNaughton 222.

TEACHING SUPPORT

The new summer schedule for the Learning Technologies Lab in Teaching Support Services begins April 27. On Tuesday, Wednesday and Thursday mornings between 9 a.m. and 3 p.m. throughout the summer, faculty and teaching staff are invited to make use of the computer stations in the lab on a drop-in basis to develop Web pages or PowerPoint presentations. To arrange special assistance in learning PowerPoint, Web editing, CD-ROM or digital audio/video creation, call Pat Thompson at Ext. 2965.

TSS will offer a hands-on introductory training workshop on Microsoft PowerPoint '97 April 26 from 1:30 to 3:30 p.m. in Day Hall 211. To register, call Helen Martin at Ext. 2973 or send e-mail to hmartin@tss.uoguelph.ca.

THESIS DEFENCES

The final examination of M.Sc. candidate Jie Wei Zhang, Food Science, is April 22 at 10 a.m. in Food Science 241. The thesis is "Investigation of IgE and IgG Epitopes on Ovomucoid

Using Egg-White Allergic Patients' Sera." The adviser is Prof. Yoshinori Mine.

The final examination of M.Sc. candidate Andrew Wingate, History, is April 26 at 9 a.m. in MacKinnon 132. The thesis is "The Colonel and His Flock: Thomas Talbot's Settlement in Upper Canada." The adviser is Prof. Gil Stelter.

The final examination of PhD candidate Corinne Van Kampen, Pathobiology, is April 29 at 9:30 a.m. in Pathobiology 101. The thesis is "Expression, Regulation and Function of Bovine Adhesion Molecules." The adviser is Prof. Bonnie Mallard.

The final examination of Shayan Sharif, a PhD candidate in the Department of Pathobiology, is May 3 at 9:30 a.m. in Pathobiology 101. The thesis is "The Bovine Major Histocompatibility Complex: Immunogenetic Study of BoLA-DRB3 Locus and Disease Associations." The adviser is Prof. Bonnie Mallard.

The final examination of PhD candidate Mansoor Mohammed, Animal and Poultry Science, is May 10 at 1:15 p.m. in Animal Science and Nutrition 141. The thesis is "Deposition of Immunoglobulins in Chicken Eggs." The adviser is Prof. Robert Etches.

COMMUNITY EVENTS

The May Day Coalition marks May Day '99 with a memorial service April 28 at 11 a.m. at City Hall to remember workers killed or injured on the job. A video and discussion of corporate media manipulation with Tom Klein Beernink runs April 29 at 7:30 p.m. at Ed Video Media Arts Centre. A May Day Happening is slated for May 1 at 8 p.m. at St. George's Church Hall. The evening will feature dancing, displays, videos, food and music by Tamarack, Black Cabbage and the Kramdens. Admission is \$5 waged, \$3 unwaged. A May Day community open house runs May 2 from 1 to 4 p.m. at Paisley Memorial Church.

Woman to Woman, a local feminist chorus, is releasing its first recording at a concert May 15 at 8 p.m. at the Cambridge Arts Theatre, 47 Water St. S., Cambridge. The CD is titled *We Sing Our Lives*. Tickets for the concert are \$10 for adults, \$7 for children under 12, and are available at the Stone Store in Guelph.

The second annual "Discover Guelph: Be A Tourist in Your Own Town" runs May 15 from 10 a.m. to 4 p.m., offering an opportunity to explore art, history, performance, leisure and nature in the city of Guelph. Venues include the Arboretum, Macdonald Stewart Art Centre, Guelph Museums, the Evergreen Seniors Centre, Riverside Park, the River Run Centre and Cox Creek Cellars. The day will feature hourly performances of music and dance sponsored by the Downtown Board

of Management, historical horse-drawn trolley rides led by Guelph Arts Council tour guides and guided birdwatching hikes leaving from the Boathouse at 10 a.m. and 1 p.m. Passes for the day are \$5 (free for children) and include free rides on Guelph Transit. They are available at any of the participating venues. For more information, call Guelph Visitor and Convention Services at 837-1335.

Gerald Neufeld will conduct the Guelph Chamber Choir, Tactus and the K-W Philharmonic Chamber Choir in a performance of Monteverdi's *Vespers* May 9 at 8 p.m. at the River Run Centre. For ticket information, call 763-3000.

Dr. Goodheart's Travelling Medicine Show, a benefit for the Cardiac Fitness Association, runs April 29 at 8 p.m. at Centre in the Square. Emceed by George Michaels of CHYM-FM, the show features the Muskoka Boathouse and Little Caesar and the Consuls and the comedy of Ron Pardo. Tickets are \$20 to \$40 and are available at 1-800-265-8977.

The Distress Centre of Wellington-Dufferin seeks volunteers to support its crisis and support line. Intensive training is provided, with new programs starting every month. Volunteers are asked to commit 16 hours a month for one year. For more information, call Sharon Saunders at 821-3761.

OUTline, Guelph's support and resource line for people dealing with transgender, bisexual, lesbian and gay issues, is looking for volunteers to staff telephone lines and help with tasks such as promotions, poster, fund-raising and office work. For information, call 836-4550, Ext. 2.

The Victorian Order of Nurses needs volunteers throughout the Waterloo region and Wellington County to help out with volunteer visiting, transportation, foot-care clinics, office work, fund-raising and promotion. For information, call Ann Runstedler at 822-5081, Ext. 1112.

The Guelph Arts Council (GAC) has published a new brochure called "A Guide to Public Art in Guelph," providing descriptions and photos of public art in various locations throughout the city. The brochure is available at local galleries and museums, the Guelph Visitor Information Centre and the GAC office.

The Suzuki String School of Guelph presents its final orchestra and chamber music concert April 25 at 3 p.m. at Westminster St. Paul's Church and its final spring concert May 2 at 3:30 p.m. at the River Run Centre. Admission to the concerts is free.

The Elora Festival seeks donations of books, records, posters, calendars, paper ephemera, puzzles and games for its annual book sale in May. For details, call 846-0517 or 846-0331.

IN THIS ISSUE

- 3 **CSAHS** presents first Student Volunteer Award.
- 3 **DISTANCE** education registration up this spring.
- 4 **PETS** are big business, economics study finds.
- 6 **PHILOSOPHER'S** new book explores the nature of science.
- 8 **HISTORIAN** studies Guelph link to Lincoln assassination and American Civil War.

Associate VP Named

Summerlee appointed for five-year term

PROF. ALASTAIR SUMMERLEE, acting associate vice-president (academic) and former dean of graduate studies, has been named associate vice-president (academic).

President Mordechai Rozanski sent out a University-wide memorandum May 3 informing the community that he had accepted the recommendation of the search committee that Summerlee be appointed for a five-year term. Rozanski will recommend the appointment when Board of Governors meets May 13.

Summerlee assumed the acting vice-president post in December when Prof. Constance Rooke left to become president of the University of Winnipeg.

"The associate vice-president (academic) position has become a vital one, especially in regard to its enrolment management aspects," says Prof. Iain Campbell, vice-president (academic) and provost. "Prof. Summerlee is admirably suited to the role in every way, and his demonstrated expertise in enrolment management will be a critical asset to this university. Our candidates were outstanding, and now that the choice has been made, I am delighted to continue to work with Prof. Summerlee."

In his new position, Summerlee will continue to chair the Enrolment Management Committee (EMC) and oversee the quality of undergraduate programs, including the

Continued on page 9



A ROYAL FAREWELL

Friends and colleagues of Margaret Hebbes of Registrarial Services (holding the flowers) gather in front of the "Duchess of Guelph Express," a City of Guelph bus renamed for its April 23 morning run to mark Hebbes' last day on the job after 26 years at U of G. Hebbes was nicknamed the Duchess of Guelph years ago by friends. Colleagues who typically don't take the bus to work got on at various stops to surprise her, presenting her with flowers, a tiara, poems, songs and chocolates throughout the excursion.

PHOTO BY DEAN PALMER/SCENARIO IMAGING

Three Receive Premier's Research Excellence Awards

Grants will propel young researchers into mid-career

THREE U OF G FACULTY are among the first recipients of funding under the Premier's Research Excellence Awards (PREA) intended to help researchers attract and retain talented graduate students, post-doctoral fellows and research associates.

Under this first round of funding from the provincial program, the Guelph researchers will receive a total of \$300,000 from Queen's Park, along with funding from the private sector and the University.

Visiting the campus April 30 to present a cheque on behalf of Jim Wilson, minister of energy, science and technology, Guelph MPP Brenda Elliott said the awards program is intended to "identify key people in the province who have tremendous promise, not only in Ontario but around the world."

PREA chair Bill Winegard, former U of G president and federal minister of science, noted that the funding "lets young and obviously very good researchers get a leg up, hire one or two more people and increase the pace of their research."

Prof. Ross Hallett, assistant vice-president (research infrastructure programs), said the grants will propel young researchers into mid-career with the assistance of more post-doctoral fellows and graduate students. "The money allows them to expand their labs beyond what would be possible with federal operating grants," he says.

The researchers represent the College of Physical and Engineering Science, College of Social and Applied Human Sciences and College of Biological Science.

• Prof. John Dutcher, Physics, will

use the money — along with funding from 3M Corp., which develops coatings and adhesives — to conduct further studies in the growing field of polymer physics, specifically thin film polymers. "This is money for people," Dutcher said, contrasting the award with equipment and facility grants. "You need people to do the work properly."

• Prof. Qi Li, Economics, is developing new methods for estimating non- and semi-parametric economic models. Department of Economics chair Chris McKenna accepted the award for Li, who is on research leave. McKenna said Li's work is used in analysing financial and labour market data and in creating and testing economic policy.

• Prof. Patricia Wright, Zoology, will use her award to hire a post-doctoral

Continued on page 2

Wasn't That a Party?

Aggies and friends celebrate partnership

THREE U OF G PRESIDENTS, five Ontario ministers of agriculture, five deputy ministers and four Ontario Agricultural College deans mingled with almost 600 party-goers at an April 30 reunion on campus to commemorate the relationship between the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) and U of G, which began 125 years ago with the founding of OAC.

"Our continuing relationship is a model partnership that demonstrates what can be achieved when institutions of higher education and research, industry, government and people all work together," said president Mordechai Rozanski.

"Is it any wonder, then, that the University of Guelph is the premier centre of agri-food, rural and environmental education, research and analytical services and outreach in Canada?"

Rozanski and Board of Governors chair Doug Dodds signed a declaration proclaiming May 1 as U of G's official Founders Day in recognition of the historical origins of the University, which began in Guelph when the provincial government established an agricultural school here in 1874.

"When the first students came here 125 years ago," said Rozanski, "their arrival on May 1 turned a farm into a campus and turned the sod on what has become the University of Guelph."

The declaration recognized U of G's position today as a research-intensive, learner-centred university dedicated to the pursuit of truth through programs offered by the College of Arts, the College of Biological Science, the College of Physical and Engineering Science, the College of Social and Applied Human Sciences, the Ontario Agricultural College and the Ontario Veterinary College.

"Together, we have built traditions of excellence and service that have inspired the University of Guelph to the front ranks of universities in Canada and beyond," said

Continued on page 9

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Next Round to Consider Eight

Continued from page 1



Ken Knox, deputy minister of energy, science and technology, far right, came to campus April 30 with Bill Winegard, chair of the Premier's Research Excellence Awards (PREA), left, and Guelph MPP Brenda Elliott to present a cheque for \$300,000 in PREA funding for three U of G researchers. Accepting the cheque is president Mordechai Rozanski. PHOTO BY MARTIN SCHWALBE

fellow and a graduate student over the next five years. In the Hagen Aqualab, she studies the early life stages of fish to help fish farmers improve their operations.

"If we aim to be the best jurisdiction in which to live, work, grow and prosper in North America, then partnerships with universities are key elements," said president Mordechai Rozanski, who lauded the work of Hallett, Wayne Marsb,

director of research services, and Prof. Larry Milligan, vice-president (research), in preparing the University's submissions.

Introduced in last year's provincial budget, the 10-year, \$75-million awards program includes a \$50-million investment from the province, with \$25 million to come from research institutions or private-sector partners. Full-time faculty employed for up to eight years are

typically eligible for funding under the program.

Eleven U of G researchers had been nominated for the first 50 awards under the current funding competition, which attracted more than 400 nominations from Ontario universities. The remaining eight faculty will be considered for the next round of funding, to be announced late next month.

BY ANDREW VOWLES

Make Sure Agreements Meet Guidelines: Hearty

Research confidentiality agreements benefit from professional involvement

CONFIDENTIALITY agreements — contracts between researchers and private companies limiting the disclosure of information about research-related developments — have come into the national spotlight recently and are likely to become more prevalent as industry-sponsored research grows, says Connie Hearty, U of G's director for business development in the Office of Research.

The University's Business Development Office is seeing more and more confidentiality agreements arise and wants to work closely with researchers to develop the agreements properly so they are consistent with the University's academic principles and recently approved guidelines on the acceptance of research support, says Hearty. The new guidelines prohibit the support of research dona-

tions, grants or contracts that limit academic freedom and integrity or compromise the University's fundamental principles in any way.

Although confidentiality agreements can be mutually beneficial, researchers may not realize how restrictive such agreements can be, she says.

If, for example, an agreement involves the use of industry-owned compounds or materials for research purposes, it may limit U of G's rights to intellectual property developments and their derivatives. If anything of commercial value is derived from the material because of research activities, the University may have no claim on royalties or licensing monies. Most important, limits to the disclosure of research results could seriously jeopardize academic freedom and integrity, Hearty says.

That's why she encourages all researchers to contact her office before signing a confidentiality agreement with an industrial sponsor. Business development staff will review and sign each agreement to ensure that legal terms related to intellectual property don't compromise the researchers or the University. They will also determine whether the agreement fully meets the University's new research guidelines and contains adequate protection for researchers and their discoveries, Hearty says.

"If you're not sure, call us," she says. "A confidentiality agreement may look innocent, but it can have long-term research implications. It truly is in the best interest of researchers to get the Business Development Office involved."

For more information, call Hearty at Ext. 6471.



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**ART CENTRE OFFICIALLY
LAUNCHES WEB SITE**

The Macdonald Stewart Art Centre officially launched its Web site May 1 at www.uoguelph.ca/msac. The site will publish the art centre's newsletters as well as information on exhibitions, events and children's art classes. Users can search the Web site for detailed information on the U of G art collections and the Donald Forster Sculpture Park. Designed by Marion Manning, the site will also be used to publish art centre curatorial notes, conference papers and other research information on the exhibitions and collections.

**MICROSCOPY SOCIETY
MEETS MAY 26 TO 28**

The Microscopy Society of Canada will hold its annual general meeting May 26 to 28 at U of G. Discussion will focus on imaging as it applies to all areas of microscopic endeavour. Topics include "Image Processing and Analysis" with John Russ of North Carolina State University and "Telepresence Analytical Electron Microscopy" with Nestor Zaluzec of the Argonne National Laboratory in Chicago. For more information, visit the Web site www.uoguelph.ca/botany/rootlab/msc99.htm, call Prof. George Harauz, Molecular Biology and Genetics, Ext. 2535, or send e-mail to gharauz@uoguelph.ca.

**OFYS SEEKS FAMILY
MEMBERS OF STUDENTS
FOR PANEL DISCUSSION**

The Office of First-Year Studies (OFYS) is looking for U of G faculty or staff who are (or were) parents (or partners) of students attending the University to participate in a panel discussion at the upcoming START for Families program. A companion program to START, the summer orientation program for entering students coordinated by OFYS, START for Families will run June 26 and July 6, 17 and 23. For more information, call Roberta Mason, OFYS co-ordinator of entering-year programs, at Ext. 2365.

**GRYPHON CAMP GETS
ON TRACK FOR SUMMER**

The Gryphon Track and Field Camp for children eight and up returns this summer, featuring the expertise of three members of Canada's National Track and Field Team. Camp director is Gryphon head coach Dave Scott-Thomas, who represented Canada at the 1996 Olympic games and has coached national teams in Japan, Northern Ireland and the Cayman Islands. Head instructor is Ian Carswell, who competed at last year's Commonwealth Games and is a 2000 Olympic Games hopeful in the 5,000-metre run. The third member of the team is heptathlete Gaby Szanto. Two camp sessions are planned — July 12 to 23 and Aug. 9 to 13. For more information, call Ext. 3430.

CSAHS Names First Winner of Student Volunteer Award

Mature student honoured for her work with local service agency

THE COLLEGE of Social and Applied Human Sciences (CSAHS) has named the winner of its first-ever Student Volunteer Award.

Darlene "Dee" Cober, a mature student in the Department of Family Relations and Applied Nutrition, was awarded the honour for her work with ACCORD (A Community for Offender Reconciliation and Diversion) in Guelph.

Cober, who will graduate at June convocation, began as a part-time student when her three children were young and enrolled full time when they began school. She chose to study family and social relations because of a lifelong dream to become a counsellor.

She also loves working with people. "Everyone has a story to tell, and I like hearing them," she says.



Darlene "Dee" Cober

A native of Guelph, Cober will be recognized at the annual college awards ceremony and have her name inscribed on a plaque to be displayed in the FACS Building. A lunch will also be held in her honour with

CSAHS dean Michael Nightingale, a representative of the Guelph-Wellington Network for Volunteer Administration and Theresa Firestone, vice-president, government and public affairs, at Pfizer Canada in Montreal.

The award was inspired by Firestone, a 1978 graduate of the College of Family and Consumer Studies. During her years at Guelph, she was actively involved in the community, investing up to 30 hours a week in volunteer activities.

To qualify for the award, students must be full-time undergraduates or graduate students in CSAHS and must have completed a minimum of 15 credits with a minimum 70-per-cent cumulative average. They may apply on their own or be nominated by other students, faculty or members of non-profit groups or organizations.

More Students Go the Distance

Registrations for distance education courses are up more than 1,000 this spring

EFFORTS to BOOST spring enrolment at U of G are paying off. As of April 30, there were more than 4,300 registrations for spring distance courses, compared with 3,241 last year.

The Office of Open Learning even had to set up a "satellite campus" in the Whippletree to improve distribution of course materials to students. It took three full-time staff members to handle the crowds most days.

As part of a University-wide effort to expand educational offerings and boost enrolment, the Office of Open Learning is offering 58 distance education courses in the spring semester, an increase of 35 per cent. It also launched a campus-wide promotional campaign on the theme "Learn While You Earn," aimed at encouraging students to take distance courses while they work over the summer.

In addition, for the first time this spring, U of G distance education courses were promoted to students attending other universities. The Office of Open Learning ran advertisements in 18 student newspapers nationwide in early April, promoting the courses.

"I've received a flood of calls based on those ads," says Carol Partland, distance education program services manager for the Office of Open Learning. "Since the ads appeared, I have also received at least six or seven e-mails a day from students at other universities."

As a result, student registrations from other universities have increased by 77 per cent over last spring. "We also anticipate that we have limited the number of letters of permission granted to U of G students," she says.

In the spring semester, campus-based course enrolment traditionally drops from about 12,000 to 3,000 students. A survey conducted last year revealed that students want more distance education offerings in the spring semester.

"Students say they look to distance education to make up a dropped or failed course, or to get ahead and reduce future work loads," says Virginia Gray, director of the Office of Open Learning. "Promoting distance education and offering more courses in the spring semester seems to have had the desired effect and students meant what they said — enrolment is up by more than 1,000 registrations."

The 58 distance education courses offered this spring include 13 new courses and nine that were redesigned. For the first time, courses are being offered from the Department of Geography, Department of Sociology and Anthropology and School of Hotel and Food Administration.

Twenty-seven of the 58 courses are Web-based.

"Having 1,000 additional registrations is quite heartening," says Rick Nigel, distance education program development co-ordinator. "I think what we are finding is that more choices and new well-designed courses lead to more registrations, and that's the message we got in the spring semester survey."

Provost Iain Campbell has been encouraging departments to convert courses into distance education courses and develop new distance programs. Last year, funding was provided from the Heritage Fund, which is used for one-time strategic investments for which there are no operating funds. Campbell recently

announced that this year there will be additional development funds for departments to develop more distance education courses.

"The increased flexibility that distance education courses provides to students is of the utmost importance to the University's enrolment strategy and its consequent academic and financial well-being," he says.

In total, U of G offers 100 degree-credit courses and 11 non-degree courses via distance education. It has also increased the number of Web-based programs ninefold since 1996 to a total of 37.

Winegard Professor to Visit Computing and Information Science

THE DEPARTMENT of Computing and Information Science (CIS) will play host this month to Winegard visiting professor Arun Majumdar, chair of the department of computer science and engineering at the Indian Institute of Technology in Kharagpur.

While here, he will give seminars on "Transaction Modelling and Concurrency Control in Active Database Management Systems" May 19 and "An Object-Oriented Approach to High-Level Synthesis of Digital Circuits" June 2. Both lectures begin at 11 a.m. in Room 233 of the MacKinnon Building.

Majumdar works on data- and knowledge-based systems, VLSI design automation, image processing and multimedia systems. Author of

PEOPLE

**B.S.C. STUDENT WINS
QUEEN ELIZABETH
SILVER JUBILEE AWARD**

Lydia Lamontagne, a third-year biomedical science student, is one of five Canadian students selected to receive the Government of Canada's Queen Elizabeth Silver Jubilee Endowment Fund for Study in a Second Official Language Award for 1999/2000. Administered by the Association of Universities and Colleges of Canada, the \$5,000 scholarships allow second- and third-year Canadian students to improve their proficiency in their second language by studying at another university that functions in the other official language. Originally from Saint-Prime, Quebec, Lamontagne will use the scholarship to complete her studies at Guelph.

**ANIMAL SCIENCE PROF
CHAIRS NSERC COMMITTEE**

Prof. Brian McBride, Animal and Poultry Science, has been appointed chair of the Natural Sciences and Engineering Research Council's grant selection committee for animal biology for a one-year period ending June 30, 2000.

**SOCIOLOGIST INVITED TO
FOUNDING MEETING OF
INTERNATIONAL CONSORTIUM**

University professor emerita Nora Cebotarev, Sociology and Anthropology, was the only Canadian invited to attend a founding meeting for an International Consortium on Gender in Agriculture and Rural Development last month at the University of Wageningen in the Netherlands. More than 40 participants from Africa, Asia, South America, North America and Europe attended the three-day meeting, invited on the basis of their work in the field. A short-term plan for developing the consortium was formed by participants, and more than 20 special projects were proposed.

- Prof. Janice Kulyk Keefer, Literatures and Performance Studies in English, wrote an article that appeared in a March travel section of the *Globe and Mail* about a trip to Paris, highlighting a visit to the Père Lachaise Cemetery.
- Prof. Michael Sobol, Psychology, was quoted in the *Ottawa Citizen* April 3 in a story on adoption in Canada and the financial strain it places on families.
- Research by Prof. Doug Larson, Botany, was featured on CBC's *Quirks & Quarks* April 3. Larson talked about his research on ancient trees that grow on cliffs.
- Prof. Doug Powell, Plant Agriculture, was quoted in the *Toronto Star* April 5 in an article about the Canadian Food Inspection Agency. Powell, an expert on food safety issues, suggested Canada set up an office of public health within the agency.
- Arboretum naturalist Henry Kock was featured in an April 9 *Globe and Mail* article about a U of G project to breed an elm tree naturally resistant to a deadly fungus that is carried from tree to tree and is destroying elms.
- Student Jennifer Lento and U of G were featured in an April 12 *Globe and Mail* article about the efforts of Canadian universities to recruit U.S. students. A photo of Lento appeared in the paper, along with information about U of G's recruitment brochure that is targeted to American students.
- Chung-Ja Jackson of Laboratory Services was mentioned in a *Globe and Mail* article April 14 on the benefits and the many uses of soy and tofu.
- U of G graduate Carrie Johnston was featured in an April 15 *Toronto Star* article on the eating habits of female athletes. The article profiled research conducted by Johnston, now a dietitian at McMaster University, and Prof. Heather Keller, Family Relations and Applied Nutrition.
- Profs. Ann Clark, Department of Plant Agriculture, and Mark Sears, Environmental Biology, were featured in the *Globe and Mail* April 16 in an article on genetically modified foods. Both spoke at a meeting sponsored by the Toronto Biotechnology Initiative.
- University professor emeritus Gil Stelter, History, was interviewed by CIQC radio in Montreal about his research on a possible Guelph connection to the assassination of Abraham Lincoln (see @Guelph story on page 8).
- Prof. Stephen Kruth, chair of the Department of Clinical Studies, was quoted in an April 19 *National Post* article on the growing number of pet owners seeking advanced treatments for their pets. He spoke about treatments available at Guelph.
- International development student Sarah Hutchison wrote an article that appeared in a March edition of the *Toronto Star's Young People's Press*. It chronicled her 10-day trip to Malawi this winter as a winner of World Vision Canada's annual 30-Hour Famine fund-raising and essay contest.
- Prof. Praveen Saxena, Department of Plant Agriculture, was interviewed last month by CBCK-FM in Kingston, a CBC affiliate, about the government setting up a special bureau to regulate natural health products.

Pets Are Big Business

Companion animal industry adds more than \$2.9 billion to Canadian economy

IT WAS A VERY SPECIAL occasion, and I just had to find one more perfect gift for a member of my family. Jostled by the crowds in the store, I agonized for at least 20 minutes. "Will she like the squeaky ball or the catnip blanket," I wondered. After all, my feline niece Ebony is a very discerning cat.

I chose the catnip blanket and added my contribution to the companion animal industry — an industry that Prof. John Livernois, Economics, estimates is worth more than \$2.9 billion to the Canadian economy and \$1 billion to Ontario alone.

A 1998 study by Livernois reveals that the pet business is big business. "The pet products and services industry is of roughly the same magnitude as a number of traditional agri-food industries," he says.

This contribution to the Canadian economy, which supports nearly 40,000 jobs nationally and almost 16,400 jobs in Ontario, is derived from pet owners' expenditures on pet products and services such as food and veterinary care.

The veterinary profession itself is a good indicator of the trends in the value of companion animals. About 66 per cent of the veterinary practices in Ontario service pets exclusively. On average, the mixed-animal veterinary practices serving the province's agricultural community receive more than 45 per cent of their income from the companion animal component of their practices and another 12 per cent from the sale of food, which is primarily for pets.

"Clearly, many mixed practices would not exist were it not for the companion-animal component," says Livernois.

Why is the pet industry as economically significant as some areas of the agri-food industry? "The magnitude of pet expenditures is an indicator of the magnitude of the value of companion animals in society," he says.

Livernois notes that although expenditure isn't the only indicator of the value of companion animals, "it is an important indicator of the importance of pets to households."

"I think we are very much a buying-oriented society, but the relationship with our pets is still very pure."

About 50 per cent of Canadian households keep pets, and the needs of companion animals are an important family budget item crossing all ranges of income levels.

Prof. Cindy Adams, Population Medicine, agrees with Livernois' evaluation of the importance of pets, especially in terms of veterinary care and service. Her area of specialization is the human-animal bond, and since arriving at OVC in 1992 to do her PhD, she has seen more and more interest in the relationship between humans and their companion animals. Recognizing the "value" of pets to their owners, Adams has also seen an increasing demand for top-quality medical care and service in OVC's Veterinary Teaching Hospi-

tal and in private veterinary practices.

The strong ties between people and their pets are forged for numerous reasons, she says. "Animals are companions, confidants and social lubricants. I think we are very much a buying-oriented society, but the relationship with our pets is still very pure."

Adams says pet owners are becoming more and more sensitive to their pets' needs and are demanding the same type of care and service from vets as they do from their own doctors.

"Veterinarians need to fully recognize the degree of attachment owners have for their pets and the demand for quality service in health- and death-related services," she says. "They can do this by integrating client communication skills into their practice. I think that through the hobby-oriented phenomenon associated with our companion animals and the media attention given to the health benefits and terrific qualities of sharing life with animals, our clients are expecting the technological care as well as the human relations, professional services and sensitivity from veterinarians."

Meeting the demands of a \$2.9-billion industry is a task that OVC graduates choosing veterinary practice must face. That's one reason that the college prepares future vets to deal with the owner-pet bond through classes on client communication, the human-animal bond and the grief associated with pet death. Currently offered as an elective, this course of study is being expanded and integrated into OVC's new DVM 2000 curriculum. Titled "The Art of Veterinary Medicine," the professional values theme will be a mandatory 26-hour-per-semester component of the DVM program. This theme is also offered as an advanced elective.

In addition, the college's strong research focus strives to keep faculty, students and practising vets one step ahead in veterinary medicine and able to respond to pet owners' demands for top-quality health care. Advances in research have made possible treatments such as canine kidney transplants and radiation therapy for cancer for pets.

But maintaining the leading edge in companion animal research and treatment has its challenges. Unlike in the agricultural sector, government funding for research on companion animal health is virtually non-existent. U of G's Pet Trust Fund attempts to fill some of the funding gap, receiving donations from a variety of private sources such as vets and pet owners. Gifts range from a few spare dollars to bequests — often in memory of a special animal friend.

As the many letters accompanying the Pet Trust gifts attest, the donations are made out of a desire to see scientific advances and leading-edge technology available for companion animals.

BY GAYLE ANDERSON

Advanced Analytical Network Will Co-ordinate Equipment, Expertise

Group will build on strengths of science departments and Laboratory Services

ANALYTICAL SCIENCE research and development at U of G is getting a boost, thanks to a new Advanced Analytical Network (AAN) that will co-ordinate the University's major analytical research equipment, skills and knowledge.

The AAN will build on the strengths of U of G's science departments and Laboratory Services to co-ordinate the use, management and technical support of existing instruments. These include advanced microscopy and imaging, nuclear magnetic resonance and mass spectrometry equipment. The network will also co-ordinate Guelph's activities with other national and international institutions housing large and expensive equipment.

"The idea behind AAN is to build on the existing equipment and expertise in the University of Guelph's enhanced partnership with OMAFRA (the Ontario Ministry of

Agriculture, Food and Rural Affairs)," says Jim Pettit, acting director of Lab Services and an AAN committee member. "We intend to establish a system that will co-ordinate the advanced equipment and staffing needs of Laboratory Services with that of University of Guelph researchers."

In addition to Pettit, the AAN committee consists of CBS dean Robert Sheath; Prof. Ross Hallett, assistant vice-president (research infrastructure programs); Prof. John Leatherland, chair of the Department of Biomedical Sciences; Prof. Alex Marangoni, Food Science; John Melicherick, manager of the Analytical Services Unit in Lab Services; and Joseph Odumeru of the Research Co-ordination Unit in Lab Services.

The group will work to develop a co-ordinated approach for the use of advanced equipment on campus. One of the first steps will be an inventory of equipment and faculty in-

terested in working with such a network.

Various departments on campus and Lab Services will collaborate to form the network. Lab Services has existing relationships with the departments of Land Resource Science, Food Science and Chemistry and Biochemistry, as well as with CBS and OVC. These alliances will be expanded, and others will be added.

A primary goal of the AAN is to increase advanced technology training opportunities for Guelph scientists and students, says Pettit. The network will help researchers develop strategic grant applications to update equipment and research programs. It's expected that research programs supported by the AAN will be more successful in applying for grants. Because the network will help co-ordinate the use of expertise, expensive equipment and highly trained technical staff, the use and quality of operations will be maxi-

mized, he says.

Pettit notes that network management teams will be formed by key faculty and staff from different faculties. Duplication of major resources will be avoided and funding opportunities for equipment maintenance and updating should increase, he says. "The network will create a mechanism to access funds for personnel and laboratory updates."

Lab Services' involvement in the network will also improve the access of individual departments to health and safety training, repair and quality programs such as ISO 9002 and GLP (Good Laboratory Practices) compliance.

In addition, proprietary work for industry and regulatory bodies will increase as laboratories develop GLP compliance, a standard necessary for analytical labs expanding their services into U.S. and European markets.

BY NATASHA MARKO
OFFICE OF RESEARCH

Bullfrog Choristers Give a Ribbiting Performance

Frog Pavarottis attract more mates around the pond

BETTER-FED bullfrogs probably attract more mates around the pond not only because they out-muscle their competitors, but also because they can keep up the requisite singing ritual longer than more puny troubadours.

That's the theory under investigation by zoology graduate student Kevin Judge, who became interested in chorus tenure among bullfrogs while working on a long-term study of amphibian abundance and decline in Algonquin Park. The study is headed by his graduate supervisor, Prof. Ron Brooks.

Judge says it might make sense for frogs looking for a mate to sing for as many nights as possible during the chorus season, which lasts from about mid-June through July in the Northern Ontario park. But his study found that only one lusty individual sang for all 41 nights of the study. Fully half of the frogs he studied joined the chorus on 12 nights or fewer. What kept so many individuals sidelined for the rest of the season?

For bullfrogs, singing comes after supping. "Calling is energetically expensive," says Judge. "You're limited by the energy resources you can build up. You eat and eat before chorusing and then just go. Frogs with longer tenure should start in better shape, lose condition more slowly and end up in poorer condition than frogs with shorter tenure. That's the chorus tenure hypothesis."

Although he has more analysis to do, his preliminary results suggest that males that bulk up to roughly the mass of a small grapefruit by the start of chorus season do sing — and mate — more often than smaller frogs.

Unlike spring peepers, which collectively keep up their Pavarotti pitch all night long, bullfrogs exercise their baritone voices in so-



Zoology graduate student Kevin Judge became interested in the singing rituals of bullfrogs while studying amphibian abundance and decline in Algonquin Park.

PHOTO BY DEAN PALMER/SCENARIO IMAGING

called unison bout choruses. One frog begins emitting the characteristic booming note, which is picked up by the rest of the chorus and sustained from about 15 seconds to a minute before tailing off.

Judge was serenaded nightly as he paddled his canoe around Lake Sasajewun, located in the Wildlife Research Area in Algonquin Park.

He caught frogs to determine which ones were singing and mating, and weighed them to see how quickly they were losing mass. Interested in seeing whether feeding during mating season made a difference, he force-fed some of the captured frogs each night — chicken hearts and crickets are a chorister's delight — but saw no effect on their singing frequency.

Judge also found that although smaller frogs sang less often, they weren't necessarily uninterested in mating. He observed that calling males, which normally sit high in the water and inflate their body and throat to amplify their voices, attracted not just female frogs but also smaller males that lay mute and low nearby.

"They're hanging out near attractive males," says Judge, explaining that scientists believe this strategy might enable these "sneaker males" to intercept potential mates. "They're not doing anything else, so they might as well give it a shot."

Brooks's long-term study of frog abundance since 1991 has shown no significant decline in bullfrog populations in the relatively pristine Algonquin Park. That result runs counter to reports of declining amphibian populations around the world, which have set off alarm bells among scientists and conservationists about the effects of habitat loss and environmental contaminants.

"Global amphibian declines are not unusual," says Judge, who believes falling populations of large mammals are just as worrisome. "Amphibians are no more at risk than mammals, birds or other animals. Everything is declining."

All vertebrates are in trouble, says Brooks, pointing out that the "red list" of endangered animals maintained by the International Union for the Conservation of Nature includes about one-quarter of all amphibians, reptiles and mammals, more than one-third of fish and more than 10 per cent of birds. Most at risk, he says, are turtles, large mammals and species living on islands.

BY ANDREW VOWLES

German Microbiologist Named Wellcome Visitor

KARLHEINZ ALTENDORF, a microbiology professor at Germany's Universität Osnabrück, will visit U of G May 25 to 28 as Wellcome Visiting Professor in the Basic Medical Sciences.

While on campus, Altendorf will meet with students and faculty and give two public lectures: "The Osmosensory Mechanism of the Sensor Kinase KdpD of *Escherichia coli*," May 25 at 3:30 p.m. in Room 1714 of the OVC Learning Centre, and "The Kdp-ATPase of *Escherichia coli*," a

K⁺-Translocating P-type ATPase of Unique Subunit Composition," May 26 at 3:30 p.m. in Room 1713 of OVC.

A professor at Osnabrück for 16 years, Altendorf has been dean of the faculty of chemistry and biology, a member of the university council and senate, and an adviser to the Max-Planck Institute, Deutsche Forschungsgemeinschaft (Germany's national funding agency for basic scientific research), VW Foundation and a variety of international re-

search funding agencies.

In 1994, he and E.J. Bowman of the University of California at Santa Cruz received the Max-Planck Research Award for work on bafilomycin and concanamycin antibiotics.

Altendorf's laboratory studies focus on bacterial bioenergetics, cellular osmoadaptation, antibiotic susceptibility and resistance, and the formation of bacterial biofilms, interests that are shared by Guelph faculty in the departments of Microbiology, Physics, and Chemistry and

Biochemistry.

The Wellcome Fellowships are sponsored by the Burroughs Wellcome Fund and administered by the Canadian Federation of Biological Societies. Only five awards have gone to Canadian institutions this year, the first year the fellowships have been awarded in this country.

"These fellowships are intended to stimulate interest in the basic medical sciences and to enhance communication among scientists," says Prof. Janet Wood, Department

of Microbiology.

Altendorf was jointly nominated for this year's fellowship by CBS, CPES and OVC. Wood says he was nominated because of his "contributions to our understanding of cellular physiology and his outstanding success as an educator and a leader of local, national and international collaborative and multidisciplinary research teams."

For more information, call Wood at Ext. 3866 or send e-mail to jwood@uoguelph.ca.



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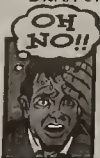
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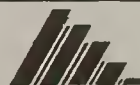
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SCIENCE WARS

"Part of the decline in the status of science is due to a general change in our culture."

BY MICHAEL RUSE

Editor's note: The following is an excerpt from *Mystery of Mysteries: Is Evolution A Social Construction?*, a new book by Prof. Michael Ruse, Philosophy and Zoology. Published by Harvard University Press, the book is an inquiry into the nature of science, using evolutionary theory as a case study.

"THE EINSTEINIAN CONSTANT is not a constant, is not a centre. It is the very concept of variability — it is, finally, the concept of the game. In other words, it is not the concept of something — of a centre starting from which an observer could master the field — but the very concept of the game."

In mathematical terms, Derrida's observation relates to the invariance of the Einstein field equation $G_{\mu\nu} = 8\pi MT_{\mu\nu}$ under non-linear space-time diffeomorphisms (self-mappings of the space-time manifold that are infinitely differentiable but not necessarily analytic). The key point is that this invariance group "acts transitively": this means that any space-time point, if it exists at all, can be transformed into any other. In this way, the infinite-dimensional invariance group erodes the distinction between observer and observed; the π of Euclid and the G of Newton, formerly thought to be constant and universal, are now perceived in their ineluctable historicity; and the putative observer becomes fatally de-centred, disconnected from any epistemic link to a space-time point that can no longer be defined by geometry alone.

(Sokal 1996a, 221-222; quoting Derrida, above, 1970, 266)

Very impressive stuff, especially if it comes dripping with footnotes as learned and as obscure as the text. But in the privacy of your own mind — with your guard down intellectually — have you really any idea what the above quotations mean? "The infinite-dimensional invariance group erodes the distinction between observer and observed?" Although I am not sure I would have been brave enough to be the first to say so publicly, to me it all reads like pure, unadulterated gobbledegook. And I very much hope that it does to you, too, because that is precisely what it is! Nonsense in polysyllables, pretending to be a serious contribution to knowledge.

But the editors of a major journal, *Social Text*, in the trendy new academic discipline of "cultural studies" did not read it that way. They took the paper seriously and published it. At once, the author, a reputable physicist from New York University, revealed it for the hoax — the pseudo-article — that it is. Whereupon, failing to realize that there are times when the only sensible course of action is to maintain silence, as dignified as you can make it, one of the gurus of cultural studies penned a long and windy and essentially irrelevant opinion piece in *The New York Times*, defending the editors in their silly and (to be frank) slipshod actions.

Academics love this sort of thing. Even normal people can crack a smile when seemingly arrogant, pompous, but essentially shallow and lazy people who talk in loud, bullying tones on subjects about which they know absolutely nothing and cloak their non-thoughts in ponderous imported jargon ("hegemony" — does anybody really know what that word means?), are shown to be the charlatans that they truly are. And if they are sufficiently conceited or naïve to fight back, then so much the more fun.

For academics, it is time to turn to the keyboard and add to the controversy. Historians can compare this with great hoaxes of the past. Philosophers can discuss the ethical implications and whether the perpetrator, who at once revealed his role, can strictly be considered to have committed a fraud. And scientists can tell all who will listen that the affair only shows that English departments, where cultural studies is usually located, deserve even less funding than they currently get. Why do they not stick to teaching people how to use the semicolon properly?

But pull back for a moment. Stop the argument about



whether the physicist author, Alan Sokal, deserves a medal or censure, or whether the cultural studies defendant, Stanley Fish, is a man of courageous integrity or foolhardy insensitivity. Let us put things in context and ask ourselves why this happened. Why would a serious scientist take time out to pen a hodgepodge of quasi-fragments about the nature of science, glued together by the worst excesses of French philosophy, dolled up with all the apparatus of the scholarly article — quotations, footnotes, references — and send it off to a journal not in his field? And why, why would serious scholars in the humanities — and these people are very serious — be so eager to receive and accept such a piece that they would embrace it and legitimize it by putting it in their journal? Why, above all, would they be so self-confident that they would publish such a piece without first running it past at least one person who knew something about physics?

Start with the scientists. In this century, they have had what one can with modesty describe as a good run for their money, although more precisely one might describe it as a good run for our money. For various reasons, this has been the century of science, of great science: relativity theory, quantum mechanics, the double helix, plate tectonics and much more. It has, moreover, been the century of the scientist, as governments, foundations, industry have poured vast sums of money into the enterprise, producing virtual factories of researchers, technicians, students, administrators and co-ordinators, all dedicated to turning out more and more empirical results, more and more theories and hypotheses, in more and more outlets: journals, books, bulletins, conference papers and various electronic forms.

But now, again for various reasons, the funds are drying up and the prestige is wilting. Part of this is from a general revamping of the global economy, with Western governments and industries having to retrench, to spend more frugally, especially on things without prospects of immediate return — pure scientific research, for instance. Part of this is from the changes in the global power structure, with the collapse of the Soviet Communist system and the end of the Cold War. No longer is there the perceived need to spend large sums on defence-related science. Does anyone really think that trips to Mars are needed to save us from the Russians? And part of this decline in the status of science is due to a general change in our culture — an increasing willingness to ask difficult and hostile questions about the

sacred icons of society and less willingness to rest content with obfuscating banalities in reply.

Science is under attack from people of equal standing, often from people inhabiting the same institutions: that is, from scholars in the humanities, from many in the social sciences and even, in some few cases, from inside the scientific enterprise itself. Always jealous of science and its success, these critics now take the opportunity to attack the empirical investigation of nature and drag it through a mud of their own making.

How can this be and how can it have come about? The manifesto of the doctry defenders — that which stimulated Sokal to action, not to mention the editors of *Social Text* in their search for science-debunking contributions — appeared a year or two back. Written jointly by a life-sciences administrator and a professional mathematician, Paul R. Gross and Norman Levitt, *Higher Superstition: The Academic Left and Its Quarrels with Science* has an explanation as simple as it is stark. The 1960s was the age of the flower children: sex, drugs, Eastern mysticism and, above all, a deep hatred of science, seen to be the essential engine of the military-induced complex, then engaged in a corrupting and evil, although highly profitable, conflict in Vietnam. Times have moved on, but not the thinking of these children — children no more, but powerful professors and administrators in the humanities and social science faculties of the universities of the West. Now they and their students can give full vent to their opposition to science, an

opposition based on prejudice, fear and, above all, rank ignorance. Searching out allies and moulding opinion to their ends, these critics have no limits to their intentions and their arrogance. Little wonder, then, that the editors of *Social Text* seized happily on Sokal's submission — a piece rubbishishing the pretensions of modern science and from a scientist himself! Exposing the piece to referees could only lead to criticism, and that is precisely what the editors did not want.

To the outsider, this scenario sketched in *Higher Superstition* sounds like paranoia. Or self-interest. One's suspicions are hardly abated when one learns from Gross and Levitt that a good way to stop the rot would be to put the hiring of new faculty in the humanities in the hands of the nation's scientists. Not only would they be asked to judge the merits of applicants in high-energy physics, but also in Restoration comedy. One shudders at the thought. Goodbye *Social Text*! Welcome *Reader's Digest*! Yet, as the saying goes, even paranoids have real enemies. Could it be that these people have a point, that there is indeed a conspiracy or (perhaps with less conscious design) a movement to tear down the status and achievement of science — a conspiracy or movement fuelled by ideology, in respects akin to that fingered by Gross and Levitt?

One has to say that precisely this is suggested by the editors of *Social Text* in their arrogant response to Sokal's hoax. They speak insouciantly of "questioning, as we do, the scientific community's abuses of authority, its priestly organization and lack of accountability to the public." The chutzpah level is off the scale. Unconfronted, they trust that the kind of critique they level "will help us avoid disastrous scientific irresponsibility in the future."

Stuff like this does not come from nowhere, even from members of English departments. The fact is that people like this are fortified by three or four decades of systematic deconstruction of science, its practitioners, its products, its promoters. Indeed, in respects, the literary criticism types are johnny-come-latelies, noteworthy more for the venom of their attacks than for the originality of their arguments. The materials for critique lie readily at hand. Take some of the real heroes of science. One by one, they have been paraded forth, clad only in their tattered underwear, with signs around their necks, rather like the victims of one of Mao Zedong's purges. In the eyes of their critics, a less credible, more sleazy bunch would be hard to imagine.

A STUDENT'S BEST FRIEND

CBS program counsellor remembers past mentors as he advises students for the future

By Andrew Vowles

IT'S MID-AFTERNOON in McNally House, and several administrative staffers have paused to watch the action as a photographer catches Prof. Fred Ramprashad reprising a role from his Guyana high school days, back when he was a one-time hot prospect for the West Indian cricket squad. It takes little prodding to encourage the academic assistant to the dean of the College of Biological Science to play up for the camera. "Stare me down," the photographer says, then clicks away as Ramprashad crouches over a makeshift wicket, wielding a toy bat and putting on his best batsman's face.

Ramprashad loves the camera — or vice versa. One framed photo in his corner office is a cover shot from the *Guelph Alumnus*, the so-called swimsuit edition that featured Ramprashad among a group hamming it up in beachwear. In another shot, he strides out at the head of a pack on his once-customary noon-hour run. In another photo taken for a recent U of G annual report, he's dressed rather more conservatively, but that suit jacket and tie hardly dim his jocular grin.

Still, Ramprashad might say that the most important photos around the office are not of him but of former students immortalized among their graduating classes in the B.Sc. biology program. Many of those faces are recognizable to Ramprashad from the lecture theatre. Many more he recalls from time spent in his corner office discussing their academic trials and triumphs.

"Your program counsellor in the College of Biological Science has the authority to grant exemptions from rules and regulations for medical, psychological and compassionate reasons," reads a statement on the Department of Zoology Web site, then as if to underline the point: "Departmental advisers can just commiserate with you — and tell you to go and see Prof. Ramprashad."

He now sees about 1,000 students a year, about one-third of the total number enrolled in the program and roughly twice the number that used to visit after he donned the counsellor's hat some 20 years ago. As program counsellor, Ramprashad tries to provide answers and options on issues that can profoundly affect a student's academic career.

It's a responsibility he takes seriously and with more than a dose of humility. During a recent convocation ceremony, a student's parents thanked him for helping their daughter. "I don't remember doing anything of significance," he says. "I just made her feel comfortable. All I did was act as a friend would. We tend to forget the effect we have on people."

Being a friend sometimes means knowing when to administer strong medicine, as in the case of students who ask to drop a failing course near the end of semester for no apparent good reason. "I say no," says Ramprashad. "They have to learn there's a consequence to their actions. My philosophy is that we learn about life with the freedom to make mistakes."

He's learned something about mistakes, as well as the effects of a few well-chosen words. There was that low point that turned instantly into a high point during his undergraduate years at the University of Western Ontario. Disconsolate over a



poor mid-term mark, he happened to be passing the office of his professor, Helen Battle, who called him in. Rather than lambaste him over the exam, she congratulated him on a recent seminar he had delivered to the class. Calling Battle a "remarkable lady" who greatly influenced his subsequent career path and teaching methods, Ramprashad recalls that she said: "You are going to make an excellent teacher."

Heady words, perhaps even more so as they partly vindicated his decision to move to Canada. He had enrolled at Western intending to follow his first love — teaching — after leaving the University of London, where he'd been studying medicine. "For me to forsake a 'professional' career was a very difficult decision to make. As a result, I can appreciate students' uncertainty about their own career paths and the societal pressure to have a specific career path. You never know what the future will hold for you."

Ramprashad brought his biology degree to Guelph in 1967 to work as a lab instructor (he completed his master's here in 1971). He speaks glowingly of former CBS dean Keith Ronald, under whose tutelage Ramprashad became a lecturer and eventually an associate professor, and with whom he worked under a once-thriving seal research program.

"I've been extremely fortunate," says Ramprashad, who, even if he can't always summon the name of a former student, seems never to have forgotten the generosity of his own mentors. Recalling his speech during a reception for Ronald in the late 1980s, he says: "I suddenly realized that here was a person I

was indebted to and I couldn't repay that person."

He expressed a similar sentiment during a speech at the retirement of Ronald's successor, Prof. Bruce Sells, in the late 1990s. Now University professor emeritus, Sells recalls being struck by Ramprashad's sometimes contradictory mix of volubility and understatement when he arrived at Guelph in 1983. "He was a marvellous asset to the dean's office, very helpful in aiding and advising students," says Sells.

Ramprashad is moved to stress his indebtedness to a list of deans — current and former — in both CBS and the College of Physical and Engineering Science. He also singles out his former CPES counterpart, Prof. Bob Winkel, now retired and living in Victoria. Together, they worked on the B.Sc. program committee and introduced several transition and retention management initiatives that appear commonplace today, but that were considered innovative during the early 1980s.

They were, for example, among the first academic advisers to push for college graduate surveys, which have since become an important part of the admissions handbook. Working with the Counselling and Student Resource Centre, they introduced a special "Success" course to help readmitted students who had been required to withdraw from their program to get back on track. Starting with 15 students, the course accommodated 150 students at its peak, 88 per cent of whom completed their degrees, compared with a mere handful previously. "We introduced the idea of proactive academic advising in terms of increasing retention," says Ramprashad. "We were very proud of that."

Between 1990 and 1994, Ramprashad also orchestrated a retention management pilot study to identify and help entering students at risk of dropping out or requiring more concentrated academic advising.

Outside McNally House, he has long been a fixture in the stands at varsity competition — and has served as faculty adviser to student athletes. Testament to that role is another memento on his office wall — an action photo signed with a thank-you note from human kinetics student and Canadian world champion aerialist skier Veronica Brenner. That role is a natural progression from his high school days, when he played nearly every sport going and where his enthusiasm made up for what he might occasionally have lacked in fitness.

Where he did excel was on the cricket pitch. His record-setting performance might have earned him a berth on the West Indies cricket squad. "But my father encouraged me to take the academic route," he says. "That was the best choice my father ever encouraged me to make."

Which brings us back to that miniature cricket bat. Close perusal of its surface reveals the scrawled signatures of the members of the Pakistani and West Indian squads who played in the 1987 World Cup Championship. The bat had been delivered by a former student, whose uncle — then manager of the West Indies team — remembered "Freddie" from their playing days. A fitting testament to his earlier athletic prowess and to the effect of the program counsellor on his students.

PHOTO BY DEAN PALMER/SCENARIO IMAGING

Canned Meat Destined for Yugoslavian Refugees

REFUGEES AND OTHERS affected by the war in the former Yugoslavia will be receiving more than 50,000 pounds of beef, thanks to the Mennonite Central Committee and U of G.

Last week, more than 600 volunteers worked 16 hours a day in a mobile meat canner set up in a campus parking lot. The week-long volunteer effort was sponsored by MCC and

the Department of Animal and Poultry Science, with assistance from eight other U of G departments and the Canadian Food Inspection Agency.

MCC has been operating a mobile canner in the United States for more than 50 years. A few years ago, Prof. Jim Shute, director of the Centre for International Programs, received a call from MCC's Waterloo office, in-

quiring about starting a project in Guelph.

Shute notes that many MCC staff members are U of G graduates, including MCC director Ron Mathies, who earned his master's degree from Guelph in 1978, working under Shute in the School of Rural Extension Studies. Mathies now runs MCC's operations from the Pennsylvania headquarters.

After being contacted by MCC, Shute called the Department of Animal and Poultry Science, "and they took it from there. The result is a fine example of U of G co-operating with a major Canadian international development non-governmental organization."

Last year, thousands of pounds of meat canned at Guelph were sent to orphanages in Russia.

Dave Worth, executive director of MCC Canada, says the meat has a reputation for being high quality and for containing a personal message for those in need.

"They know it's not done in a factory," he says. "They know people have dedicated their own time and money. We don't want it to be anonymous. People need to know that people care."

A Shot in the Dark

Historian studies Guelph connection to a failed Civil War plot to capture Union warship and free Confederate soldiers

HOW'S THIS for a conspiracy theory? Abraham Lincoln's assassination was carried out to avenge the Civil War hanging of a Confederate soldier who had led a plot to free prisoners of war being held by the Union side on a Lake Erie island — a scheme concocted in the home of a Guelph foundry owner and Confederate sympathizer.

University professor emeritus Gil Stelter, History, says the connection to the former U.S. president is almost certainly a fabrication. Laying aside that bit of intrigue, he says many of the details about the plot involving former Guelph businessman Adam Robertson are murky at best. Did the conspirators hijack a paddle-wheeler to carry out their plan? Were the munitions that had been cast here in Guelph scuttled along with the ship? And just how influential was that foundry owner in a rather less nefarious but far more successful plan to bring the Ontario Agricultural College to Guelph?

Intrigued by these and other questions, Stelter has made it one of his retirement projects to ferret out just what happened here a century and a half ago. Having dug into archives, oral histories, land registries and other documents, he's still following the tangled threads of the story with plans to write a short volume about Guelph's little-heralded connection to the Civil War.

The story begins with Scottish immigrant Adam Robertson, who moved to Guelph in 1847. He helped establish two iron foundries here — including one in partnership with a member of the Inglis family, who would later gain fame as appliance manufacturers — before starting his own factory in 1852 on Eramosa Road, not far from the house he built on Mitchell Street.

The company gets mention in several early directories and books, including a reference in Leo Johnson's *History of Guelph: 1827-1927*. "The American Civil War not only produced a period in which Guelph's new manufacturing firms could prosper, it also directly involved one of Guelph's oldest and most respected establishments, the foundry and machine shop of Adam Robertson and Son." Although farm implements were its main stock-in-trade, the foundry ended up beating at least a few plowshares into cannon and cannonballs through its connection to the Civil War.

Bennett Burley, a Scottish cousin of Robertson's and a sympathizer for the southern cause, had found his way to Guelph along with several compatriots, including their ring-leader, John Yeats Beall. The group persuaded Robertson to make several cannon, cannonballs and even hand grenades in his foundry.

According to an interview with Robertson's son Adam Jr. published in 1917 in the *Daily Mercury*, the conspirators planned to ship the munitions to Lake Erie, where they would be used to free Confederate soldiers imprisoned on Johnson's Island in Sandusky Bay, Ohio. In the process, the group planned to capture a Union warship that was guarding the island.

"The war was going badly for the South, and they thought it would be a boost for the forces," says Stelter.

The plot failed miserably. Stelter, who found copies of correspondence written by the conspirators from the Robertson home, says it was common knowledge in Guelph that the foundry on Eramosa Road was turning out more than plows and harrows. Even worse, the Union army had learned of the Johnson's

Island plot — and of a companion scheme to burn New York, for which explosives were also being made in Guelph.

Just how the plan foundered is a matter of some debate, says Stelter. According to an article published in 1957 in the *Detroit Historical Society Bulletin*, the group had hijacked the lake steamer *Philo Parsons*, which they sailed after nightfall within sight of the island. Realizing, however, that they had been discovered, the group fled and eventually scuttled the boat. The article makes no men-

"After the plan failed, Robertson hid the cannon, apparently in the foundry. It stayed hidden until 1892, when Adam Jr. brought it out for his mother's birthday."

tion of cannon aboard the captured ship. Rather, it states: "Just how Beall expected to capture a 15-gun iron warship with revolvers and bowie knives has never been satisfactorily explained."

Based on his reading of correspondence and other documents, Stelter believes the conspirators made a second unsuccessful attempt after purchasing a steamer in Toronto that they planned to outfit with the cannon cast in Robertson's foundry.

Whether the raiders were captured that night or were rounded up later, a number were eventually caught, including Beall and Burley. The former was tried and hanged for his role in this and other schemes.

Stelter continued to research Beall's Civil War exploits during a

trip to the National Archives in Washington this year and hopes to pay another visit to learn more about this enigmatic figure. One story has it that John Wilkes Booth, known to be a close friend of Beall's, planned Lincoln's assassination partly to avenge his friend's execution. "That's a long-held rumour that I don't think is true," Stelter says.

Arrested and extradited to the States on a charge of robbery, Burley escaped from prison and eventually returned to England. There, having changed his surname to Burleigh, he gained fame as a war correspondent for the *London Daily Telegraph* and eventually wrote nine books about campaigns in Africa, the Far East and the Balkans — but not a word about Lake Erie, as far as Stelter can tell.

Back in Guelph, Robertson's involvement in the scheme appears not to have damaged his prospects. His foundry was lauded during the 1870s and 1880s as a respected employer. Having served as a town councillor for decades, he became mayor in the year that officials were lobbying the province to bring the Ontario School of Agriculture and Experimental Farm — forerunner of OAC — to Guelph rather than Mimico.

"I haven't seen direct references to Robertson's influence," says Stelter. "All I know is that he was mayor that year and he said he would work hard to get the school to locate here."

After Robertson's death in 1882, Adam Jr. ran the foundry. Only one branch of the family has survived, through another son, William, whose descendants now live in Vancouver. It's that branch that holds a piece of evidence that Stelter finds particularly intriguing.

Those long-ago cannon from Robertson's foundry were lost — all

but one, left behind in Guelph because it had proven defective. Says Stelter: "After the plan failed, Robertson hid the cannon, apparently in the foundry. It stayed hidden until 1892, when Adam Jr. brought it out for his mother's birthday."

Mounted in the front garden of the family home on Mitchell Street, the cannon remained on display until Adam's death in 1920, when the house was sold. Moved to the home of a relative in Guelph, the gun was eventually shipped westward when the family moved to British Columbia. There, it has overlooked Vancouver's Horseshoe Bay ever since. Stelter hopes to persuade the family to return the cannon to Guelph. "I would really like to see it come back and stay at the house. This is where the conspiracy took place."

This isn't merely the historian in him talking. Besides his academic interest, Stelter has a personal stake in the story. Even before beginning his paper chase, he had long had his eye on the former Robertson home, a 2½-storey limestone dwelling that he calls a classic example of 19th-century rural Ontario architecture — the topic of another book he's writing.

He and his wife, Sally, bought the house in 1990 (gardening buffs may recognize the house and its grounds from last year's Gardenscapes tour). Glancing around his living room, Stelter says it might have been in this very room that the Confederates hatched their schemes. With Canada trying to remain neutral, "any activity for the Confederates by Canada would have to be secret. In that summer of 1864, this must have been a lively place. All of that stuff was conceived here, people sitting where we're sitting and making it up."

BY ANDREW VOWLES

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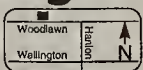
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New College on the Hill History Book Launched

Continued from page 1



On hand for the April 30 reunion were, from left, Frank Ingratta, deputy minister of the Ontario Ministry of Agriculture, Food and Rural Affairs; OAC dean Rob McLaughlin; Board of Governors chair Doug Dodds; president Mordechai Rozanski; Guelph MPP Brenda Elliott; Agriculture Minister Noble Villeneuve; and Norris Hoag, assistant deputy agriculture minister.

PHOTO BY DON HAMILTON

the president, who suggested that Founders Day be used as a time to say thank you to the faculty, staff, students, alumni and friends who have helped build and continue to contribute significantly to the University's place in society.

Among them, he said, are former U of G presidents Bill Winegard and Burt Matthews, who attended the picnic on Johnston Green to help celebrate the 125th anniversary of OAC, along with former college deans Rick Richards, Clay Switzer and Freeman McEwen.

Current OAC dean Rob McLaughlin said that Guelph's OMAFRA colleagues "should also take pride in the achievements of OAC and the University, since many of them were accomplished through our great education, research and

extension relationship."

His words were echoed by agriculture minister Noble Villeneuve, who congratulated OAC and the staff of both the college and OMAFRA, "who have over the years worked so well together for the betterment of our agriculture and food industry. We would not have accomplished nearly so much had either of us tried to go it alone."

Joining Villeneuve at the reunion were former ministers Lorne Henderson, Dennis Timbrell, Jack Riddell and Elmer Buchanan. Deputy minister Frank Ingratta returned to his alma mater for the day's events, along with former deputies Kenneth Lantz, Clay Switzer, Rita Burak and Ken Knox.

Among the 600 guests were deans, faculty and staff from the

Guelph campus, the affiliated colleges and many research station and laboratory locations. OMAFRA employees also came from several of the ministry's branch offices, and there were many U of G alumni and University and OMAFRA retirees in attendance.

The day also served as an official book launch for *The College on the Hill: A New History of the Ontario Agricultural College, 1874-1999*, written by Prof. Terry Crowley, History, and University professor emeritus Alex Ross, who wrote the first college history during his years as an English professor at Guelph. Copies of the book will be given to all OAC graduates in 1999 and will be available for sale in the University Bookstore.

BY MARY DICKIESON

Distance Education Is Critical Focus of New Associate VP

Continued from page 1

development of new programs and ongoing quality improvements. The Office of Open Learning, Teaching Support Services and Registrarial Services will report to him. One of his critical areas of focus will be the continued development, in close collaboration with the provost, of distance education courses. He will also work in co-operation with other administrators to co-ordinate the Office of First-Year Studies.

Summerlee also plans to continue teaching in the Department of Biomedical Sciences and carry on his Natural Sciences and Engineering Research Council-supported research on the hormone relaxin.

"It is very important for someone responsible for the quality of under-

graduate programs to maintain first-hand knowledge of what being a teacher involves and to preserve an ongoing relationship with students," he says.

Summerlee plans to work with the president and provost toward government restoration of public funding and with the University community to form policy on how best to respond to the double cohort and increased number of students who may be applying to university.

"The University will have many important issues to consider, including whether to increase the number of students, how to educate them, what the faculty will need and what programs we want to include," he says.

A graduate of Bristol University, Summerlee joined the faculty of OVC in 1988. He was named associate dean of the college in 1992 and dean of graduate studies in 1995. He also served as acting associate vice-president (academic) and registrar in 1997.

During his years at OVC, Summerlee spearheaded a major change in the college's approach to learning and began a process that led to a complete curricular revision of the DVM program. As graduate studies dean, he helped develop an innovative executive MBA in agriculture in partnership with Athabasca University. He has chaired EMC since 1996.

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HAVE FUN WITH HISTORY



The final "Super 25" questions cover the entire period from 1873 to 1999 and are intended to be more difficult than the first 100. Number 125 is the final exam. Good luck.

101. Who was the first dean of Macdonald Institute?
102. Where is the cornerstone of Johnston Hall?
103. The Zavitz desk in the OAC boardroom was once used by what college president?
104. What is the motto on the coat of arms on the cornerstone of Johnston Hall?
105. Who was Katherine Beck?
106. Which of U of G's four agricultural colleges was the first francophone educational institution supported by the Province of Ontario?
107. What famous statistician visited the campus in 1949?
108. When were options first offered in the associate diploma program?
109. Where was the first campus water tower located?
110. What is the first line of the OAC song?
111. What was the first motto of OAC?
112. Which president required matriculation for entry into the BSA program in 1920?
113. When was the large formal garden in front of the main building eliminated?
114. When was the fourth-year thesis requirement deleted?
115. Who was the professor of physics who organized the drainage of the Holland Marsh at Bradford?
116. Who was the professor of forestry who developed reforestation practices for Ontario?
117. What were the four major buildings demolished in the construction of the MacKinnon Building, McLaughlin Library and the University Centre?
118. Which building was saved from demolition by former U of G president Brian Segal?
119. Name three buildings designated by the Local Architectural Conservation Advisory Committee.
120. Who was Adelaide Hoodless?
121. The architects Robbie, Young and Wright designed the Bovey Building and which other building on campus?
122. U of G has several single-family homes as part of the campus. Why were they built?
123. When was free parking for faculty and staff eliminated?
124. In what year did the central heating plan begin operating?
125. List OAC principals, presidents and deans in chronological order from 1873.

Find the correct answers in this listing:

To the rear of the old Main Residence — Mills — *Practice with Science* — site of the MacKinnon Building — G.W. Snedecor — Massey Hall, Alumni House and the president's residence — 1918 — 1922 — Johnston, Mills, Creelman, Christie, Reek, MacLachlan, Richards, Switzer, McEwen, McLaughlin — principal of Macdonald Institute — Zavitz Hall — R.A. Fisher — E.J. Zavitz — as homes for personnel whose jobs required their presence after hours — W.H. Muldrew — W.H. Day — the SkyDome — the founder of Women's Institutes and influential in the formation of Macdonald Institute — Johnston — "We're true to you, old red and blue" — Alfred — Apiculture, Chemistry, the gymnasium and the old Horticulture Building to the left of the main entrance — Joseph Reynolds — McCandless, Roberts, Johnston, Mills, Creelman, Reynolds, Christie, Reek, MacLachlan, Richards, Switzer, McEwen, McLaughlin — 1895 — *Meliora semper in agricultura quæritur* — 1964 — 1947 — the CN Tower — George Day.

Answers for the OAC 125 Quiz of April 21:

76 - 1925; 77 - 1953; 78 - Clayton Switzer; 79 - 1951; 80 - Faculty of Agricultural Sciences or Faculty of Agricultural and Biological Sciences; 81 - 90; 82 - Freeman McEwen; 83 - Alfred, Kemptville, OAC and Ridgetown; 84 - 22.2 and 35.2; 85 - Manuel Marcia, Microbiology (OAC); 86 - 1990; 87 - Ridgetown; 88 - Burton Matthews; 89 - OVC, OAC and Macdonald Institute as a group, in transition to becoming the founding colleges; 90 - OAC; 91 - July 1, 1964; 92 - 1961; 93 - Richard Richards; 94 - 1971; 95 - 1959; 96 - 1965; 97 - 1980-1981; 98 - Alfred; 99 - George Creelman; 100 - Frank Palmer.

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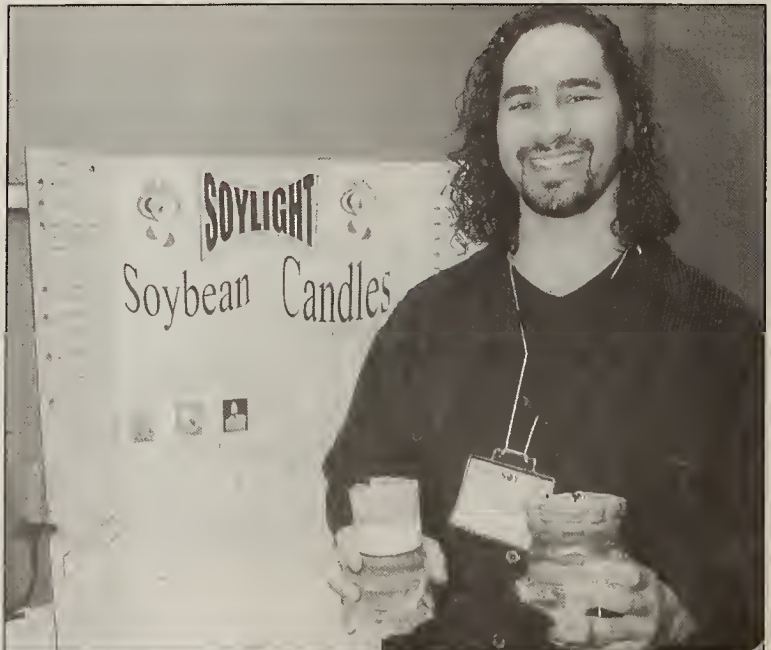
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Breaking into Soy Business

Annual competition sparks innovative ideas for soybean industry



Valerio Primomo, a master's student in the Department of Plant Agriculture, returned to the winner's circle this year in the third annual Project SOY competition. Winner last year for a dessert called SoYummy, he took the spotlight in this year's graduate/undergraduate category for the creation of SoyLight soybean candles.

PHOTO BY MARTIN SCHWALBE

THERE'S MORE to soybeans than just tofu and animal feed. That was clear last month as 14 U of G student teams presented their entries in the annual Project SOY (Soybean Opportunities for Youth). Soy-based surfboards, candles and soap, crackers, spreads and frozen fruit bars were just some of the projects featured at the competition, which encourages students to develop fresh ideas for soybean marketing, research and innovation.

Now in its third year, the contest was designed by Guelph-based First Line Seeds to give students a chance to gain practical skills while establishing links with industry — and an opportunity to win cash prizes. The competition is also sponsored by U of G's Laboratory Services, Maple Leaf Foods and the Ontario Soybean Growers' Marketing Board.

"The contest is all about cultivating the creativity and innovation of students, as well as educating the public on wide applications of soybeans," says Peter Hannam, president of First Line Seeds and a contest judge. "After seeing student and public excitement over soybeans and Project SOY, I believe the contest has come a long way in reaching its goals."

Project SOY awards prizes of \$2,500, \$1,000 and \$500 in both undergraduate/graduate and diploma categories. This year's 23 participating students came from a range of disciplines, including engineering, food science, horticulture, crop science and applied human nutrition.

"We had a very tough job choosing winners," says Chung-Ja Jackson of Laboratory Services, who also judged the contest. "All of the projects had merit, and it was obvious that every student put in hours of

time and effort to create their entries."

Returning to the winner's circle this year was Valerio Primomo, a plant agriculture graduate student who invented a yogurt-like dessert last year called SoYummy. This year, he took the spotlight in the graduate/undergraduate category for the creation of SoyLight soybean candles. The elegant smoke-free candles are made from 100-per-cent soybean oil. They last longer than regular candles, don't emit carcinogens and are environmentally friendly.

Second-place prize in the same category went to a team of engineering students — Veronica Giolfi, Brian Maves, Marilyn Rayner and Paul Stedman — for their edible soy protein films. This food coating can be used to protect foods from absorbing too much saturated fat during deep frying.

Two groups of students tied for third place in the undergraduate/graduate category. International development students Kevin Dilamarter and Laura Levac created *SoyWorks*, a publication about research breakthroughs in the soybean industry. Food science students Kristina Tomljenovic and Janine Mosley won for their SoYummy SoyPops, nutritious and creamy frozen fruit bars.

In the diploma category, Ben Arnold of Ridgetown College captured first place for a business plan called Soy's Up. His start-up company has the ability to annually produce about 400,000 surfboards made from a soy-enhanced polyurethane that's stronger and cheaper than foam currently on the market.

Second prize went to Ridgetown student Alana Smith for her business plan for Water Lily Soaps, a com-

pany that will generate plant-based insect repellent and antibacterial soaps for campers.

Jonathan Coughlin of Kemptville College won third place with his Spreadable Butter, which combines the taste of butter with the spreadability of margarine by adding soy oil.

Other competition entries included SoyThick, a soybean-based texture-modifying agent or thickener that would increase swallowing safety for hospitalized or geriatric individuals, soybean spreads, snacks and chocolate.

BY JENNY TYE
OFFICE OF RESEARCH

LETTERS

STAFF RETIREE SAYS THANKS

After 25 years in the Office of Registrarial Services, I am retiring! To all my friends on campus, and especially to my friends and colleagues in Admission Services, I would like to say a heartfelt thank you for the wonderful and never-to-be-forgotten retirement party for me April 9 in the Whippletree. The beautiful farewell gifts I received will always be cherished, and the warm wishes and generosity of everyone who contributed to the festivities will always be fondly remembered. Special thanks to the organizing committee, Janette Hogan, Marisa Phillips and Donna Kramp, who did such a wonderful job of planning the party.

Margaret Hebbes
Admission Services

CLASSIFIEDS

FOR SALE

Dog kennel and panels, six by 10 feet; country house with studio backing on conservation area in Everton, 20 minutes from campus, no agents, 856-1042 or visit the Web site www.boundryarts.com/house.

Eighteen-speed girl's bicycle, 24 inches, excellent condition, Ext. 6446/3336, 767-6057 after 5 p.m. or ylou@aps.uoguelph.ca.

Girl's bicycle with training wheels, unisex five-speed bicycle, life jackets, sleeping bag, Sandra, 821-5736 after 6 p.m.

Pet food, toys and bedding at Central Animal Facility, 8 a.m. to 4:30 p.m., Ext. 4309 or visit the Web site www.uoguelph.ca/ACS/.

Selkirk zero-clearance fireplace box and metal asbestos chimney, 8,000-BTU vertical window air conditioner, EZ Glider, three sets of track lighting, green stained-glass hanging lamp, five-bulb brass bathroom lighting strip, white four-blade ceiling fan, Bev, 836-7070 or bbuckie@uoguelph.ca.

Woman's steel-toed workboots, brown leather, size 7/8; portable X-ray film viewer, never used, leave message at 821-9806.

1993 Mazda Protegé, one owner, non-smoker, excellent condition, all service records, certified, 823-2012.

Top floor of three-bedroom house in old University neighbourhood, two-minute walk to campus, non-smoker, \$1,100 a month inclusive, 823-5014.

1995 Honda Civic CX hatchback, automatic, AM/FM cassette, 46,000 kilometres; medium-sized chest freezer, white, hardly used, Ext. 8596 or send e-mail to tsakamot@uoguelph.ca.

Washer, 20-pound capacity, three years old, excellent condition, 763-3669.

1983 Ford Mustang coupe, as is, 821-9227.

Cosco infant/toddler chair seat, Evenflo Happy Camper portable crib, Evenflo Hike & Roll backpack, Stu, Ext. 2101.

Three-bedroom condo, several upgrades, spacious, ideal for professionals or young family, close to bus route and downtown, 837-1339.

Fish drawings and gyotaku, framed or unframed, reasonable prices, send e-mail to iimre@uoguelph.ca.

Girl's 20-inch five-speed bicycle, used two summers, excellent shape, leave message at 836-5626.

FOR RENT

One-bedroom apartment in Paris, France, and holiday home in Antibes on French Riviera, Nicole, 836-6745.

Two-bedroom cottage in Georgian Bay on island overlooking Killbear Provincial Park, Ken, 822-2125 days or 822-7705 after 7 p.m.

Two-bedroom water-view cottage four miles north of Sauble Beach, eat-in kitchen, TV, VCR, campfire pit, propane barbecue, non-smokers, \$450 a week, 763-1235.

Furnished one-bedroom apartment, private entrance, quiet neighbourhood, laundry, air, parking, suit single non-smoker, no pets, \$450 a month inclusive, references required, 763-2632.

Bachelor apartment, four-piece bath, laundry, parking, close to bus stop, available immediately, \$480 a month inclusive, 823-8914.

One-bedroom basement apartment in private home for quiet mature female or couple, Speedvale/Victoria area, separate entrance, laundry, parking, central air, non-smokers, no pets, references required, \$600 a month, 836-7587 after 6 p.m.

One-bedroom apartment on 11th floor, interior parking, laundry, hot tub, downtown by Speed River, available immediately for lease or summer sublet, \$625 a month, 826-6918.

One-bedroom apartment for summer sublet, downtown, \$450 a month, price negotiable, leave message at 827-1416.

Two-bedroom apartment in south end, large bright walkout, private entrance, parking, laundry, air conditioning, suitable for professionals or mature students, non-smokers, no pets, available June 1, \$800 a month inclusive, Ext. 2936 or 766-9289 after 5 p.m.

Furnished room near campus, private entrance and kitchenette, laundry, parking, non-smoker, no pets, available in September, \$325 a month inclusive, leave message at 763-1236.

Furnished luxury home, 2½ baths, convenient to campus, parks and Stone Road Mall, suitable for visiting faculty, available September 1999 to May/June 2000, Ext. 2622 or send e-mail to gchapman@msnet.mathstat.uoguelph.ca.

Three-bedroom basement apartment, 20-minute walk to campus, close to shopping, separate entrance, parking, laundry, Ext. 4018 or 836-6862 after 5 p.m.

Two-bedroom apartment in private home, laundry, cable, central air and vac, two blocks to campus, on bus route, non-smokers, no pets, no parking, Ext. 6528 or 822-2336.

Two-bedroom country home on one-acre lot, finished basement with third bedroom, recently renovated, large organic garden, available August 1999 for one year, Ann, Ext. 2508 or aclark@plant.uoguelph.ca.

Furnished apartment, fully equipped, private entrance, parking, air, central vac, suitable for short-term rental, \$795 a month inclusive, Carol, 823-1857.

AVAILABLE

Experienced housekeeping by mature couple, references, looking for Sept. 1, Don or Dawn, 836-5106.

WANTED

Recent-edition set of *Encyclopedia Britannica* or similar, outdoor trampoline, ping pong table, Ext. 3438 or 763-7430.

House or apartment for two adults and well-behaved child for month of

July, 867-669-9115 or send e-mail to sophie@ssimicro.com.

Furnished above-ground room for fourth-year student in quiet house for Sept. 1, parking, laundry, downtown or country location, references available, send e-mail to eboyle@uoguelph.ca.

Three-bedroom furnished house or apartment with laundry and parking for student for eight months beginning in September, non-smoker, no pets, Krista, send e-mail to aime@mailcity.com.

Two-bedroom condo, house or apartment for married couple for end of August or beginning of September, close to campus, rent under \$600, 403-327-6816 or send e-mail to heigit@uleth.ca.

Caregiver in our home for one or two days a week for two boys aged six months and four, close to campus, older son attends preschool, references required, Andrea or Richard, 837-3790.

Furnished pet-free two- or three-bedroom home for month of July, send e-mail to yeelai@ust.hk.

Classifieds is a free service available to staff, faculty, students, alumni and retirees of the University. Submit items by Wednesday at noon to Linda Graham on Level 4 of the University Centre, fax to 824-7962 or send e-mail to lgraham@exec.admin.uoguelph.ca. For external and commercial advertising, call Brian Downey at Ext. 6665 or send e-mail to bdowney@exec.admin.uoguelph.ca.

AN OUNCE OF PREVENTION . . .

Car accidents: human error is usually the cause

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Unfortunately, human error is the most frequent cause of accidents.

You don't have to be an expert in road safety to know that most accidents are caused by human rather than technical error. To mitigate this, these simple behind-the-wheel safety measures should be followed:

- Always stay a good distance from the vehicle in front of you so that you will be able to stop your vehicle quickly and safely;
- Always keep the windshield, headlights, tail-lights and windows clean and adjust the rear-view mirrors to reduce blind spots;
- Slow down for yellow lights, come to a complete stop at stop signs and respect speed limits;



Finally, don't drive when weather conditions are bad and when you are tired.

It goes without saying that you should never drive when you have been drinking. The severity of the penalty should be enough to convince you of this. To avoid ending up in a hospital or jail, it's better to be prudent, public-spirited and sober when you get behind the wheel.

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ARBORETUM

As part of the city's second annual "Discover Guelph: Be a Tourist in Your Own Town" event, the Arboretum is hosting a "Celebrate Spring" family day May 15 from 10 a.m. to 4 p.m. The day will feature wagon rides between East Ring Road and the Arboretum Centre, craft artisans, soloist Lucy Alyea, children's entertainer Doug Barr and nature displays. Passports for "Discover Guelph" are \$5, free for children, and can be purchased at the Arboretum. For more information, call Ext. 2113.

Interpretive naturalist Chris Earley will lead a workshop on identifying summer forest birds May 25 and June 1 at 7 p.m. The workshop also features a hike through the Arboretum May 29 at 6:30 a.m. Cost is \$58. Registration and payment are required by May 14. To register, call Ext. 4110.

ART CENTRE

Two new exhibitions open at the Macdonald Stewart Art Centre May 20 — "Ron Shuebrook: New Acquisitions, Paintings and Drawings 1985 to 1997" and "Greg Murphy: Fragments." Shuebrook, a former faculty member in the School of Fine Art and Music who is now academic vice-president at the Ontario College of Art and Design, and Murphy will lead a panel discussion on "Abstraction and Representation" at 7:15 p.m. A reception begins at 8 p.m.

CONCERT

The Canadian Orpheus Male Choir will perform a benefit concert for U of G's ecumenical campus ministry May 13 at 8 p.m. at the River Run Centre. Tickets are \$25 and are available from the River Run box office at 763-3000 or from Rev. Lucy Reid at Ext. 2390.

LECTURE

Irwin Fridovich, the James B. Duke Professor Emeritus of Biochemistry at Duke University Medical Centre, will give the 1999 Chapped Memorial Lecture May 13 at 3 p.m. at the OVC Learning Centre. His topic is "Oxidative Stress: the Threat, the Defences and the Consequences." The lecture is sponsored by OVC, CBS, the Office of Research and Graduate Program Services.

NOTICES

The 1999 Congress of the Social Sciences and Humanities runs June 2 to 12 at the University of Sherbrooke and Bishop's University. More than 7,000 scholars in the humanities and social sciences from across Canada and around the world are expected to attend the congress, which will host the annual meetings of more than 90 associations. For more information, send e-mail to congress@hsssc.ca or visit the Web site www.hsssc.ca.

The spring Walking Connection program runs Tuesdays and Thursdays from noon to 1 p.m., leaving from the Health and Performance Centre in the Powell Building. On walks in the Arboretum, participants will have an opportunity to learn about native trees and plants. For more information, call Cheryl Anderson at Ext. 3908.

The Stress Management and High Performance Clinic will offer a skills training class beginning May 18. It runs Tuesdays and Thursdays from 8 to 9 p.m. in UC 441 for six weeks. The class will offer instruction in a variety of techniques for muscular relaxation, anxiety reduction and worry control. Cost is \$40 for U of G students, \$60 for UGSA members and \$120 for others. For more information, leave a message at Ext. 2662 or visit the Web site www.uoguelph/~ksomers.

ACU Development Fellowships are available to academic and administrative staff aged 28 and 50 to spend six months in a Commonwealth country at a university, in industry or in public service. Application forms are available at the Centre for International Programs InfoCentre on Level 2 of Day Hall. Application deadline is May 31. Nominations must be made by the president. To discuss the nomination procedure, call CIP director Prof. Jim Shute at Ext. 6909.

More than 500 students from high schools across Ontario will descend on campus May 7 to 9 for the 31st annual Ontario Students' Classics Conference. Events will include a fashion show of Greek and Roman clothes May 7 at 8:30 p.m. at War Memorial Hall, athletic and academic contests, an archeological dig and a chariot race May 8 at 3:30 p.m. at Alumni Stadium.

The Health and Performance Centre celebrates National Sneaker Day May 14 with pedorthist Bryan Billings discussing how to pick the right shoe for summer activities at noon in Powell 207.

U of G's Taiwan partner university, National Pingtung University of Science and Technology, invites academics on sabbatical leave to offer courses (in English) in such fields as plant science, aquaculture, plant protection, veterinary medicine, wildlife conservation, agribusiness, rural planning, landscape architecture and child development. Travel and accommodation costs are provided. For more information, call Prof. Jim Shute, director of the Centre for International Programs, at Ext. 6909.

Guelph's Reading Group, a local book club started in 1981 by Prof. Patrick Holland, Literatures and Performance Studies in English, meets the first Thursday of each month at 8 p.m. in rotating locations. Carole Shield's book *Larry's*

Party will be discussed at the June 3 meeting. New members are welcome. For more information, contact Prof. Peter Brigg via e-mail at pbrigg@uoguelph.ca.

SEMINARS

The Department of Pathobiology seminar series continues May 7 with Prof. Azad Kaushik explaining "Of Cattle, Men and Antibodies" and May 21 with Prof. Robert Foster on "Becoming a Board-Certified Pathologist — the Certifying Examination of the American College of Veterinary Pathologists." The seminars begin at 2 p.m. in Pathobiology 2152.

The Department of Human Biology and Nutritional Sciences presents graduate student Robert Bertolo discussing "Amino Acid Utilization in Parenterally and Enterally Fed Pigs: How Important is Gut Metabolism?" May 10 at 3 p.m. in OVC Learning Centre 1713. On May 17, Ormond McDougall of the University of Michigan outlines the "Role of C/EPB Alpha in Adipocyte Differentiation and Metabolism" at 3 p.m. in Animal Science and Nutrition 141.

The biochemistry seminar series continues May 13 with Ron Midura of the Cleveland Clinical Foundation explaining "Bridging the Gap in Bone Formation" at noon in MacNaughton 222.

The Health and Performance Centre presents a clinical rounds seminar on shoulder injury May 14 at 7 a.m. with orthopedic surgeon Dr. Gary Stamp.

TEACHING SUPPORT

Teaching Support Services will offer a workshop on "Handling Conflict, Anger and Emotion in the Classroom" May 12 from 10:30 a.m. to noon in Day Hall. To register, call Helen Martin at Ext. 2973 or send e-mail to hmartin@uoguelph.ca.

TSS and the College of Social and Applied Human Sciences are sponsoring a conference on "The Changing University Landscape: Implications for Faculty Work Life" May 27 from 9 a.m. to 5 p.m. at the Arboretum. Keynote speakers are Alan Guskin, former chancellor of Antioch University, and Robert Diamond, director of the Institute for Change in Higher Education at Syracuse University. Cost is \$50 for on-campus registrants (fee will be covered by deans and unit heads) and \$90 for off-campus participants. Registration deadline is May 10. To register, call Jeanette Dayman at Ext. 2468, send e-mail to jdayman@uoguelph.ca or register online at www.tss.uoguelph.ca/tli.html.

TSS is seeking feedback from teaching assistants and other teaching staff about the 1998/99 *TA Handbook*. Send in the evaluation sheet

located in the back of the handbook or e-mail your comments on content, format, effectiveness, etc., to tassupport@tss.uoguelph.ca.

THESIS DEFENCES

The final examination of Erin McNeillage, an M.Sc. candidate in the Department of Animal and Poultry Science, is May 6 at 9 a.m. in Animal Science and Nutrition 101. The thesis is "Effects of Feed Enzymes and Feeding Regimens on Growth, Digestibility, Organ Weight and Meat Quality in Finishing Pigs." The adviser is Prof. Kees de Lange.

The final examination of MLA candidate Tom Prokai, Landscape Architecture, is May 6 at 1 p.m. in Landscape Architecture 125. The thesis is "Evaluating Impacts of Pedestrian-Friendly Streets in Urban Retail Areas." The adviser is Prof. Cecelia Paine.

The final examination of Annette Marleau, a PhD candidate in the Department of Biomedical Sciences, is May 7. The seminar is at 9:30 a.m. in OVC 1642, followed by the defence in OVC 1691. The thesis is "Analysis of Transplacental Trafficking of Maternal Nucleated Cells to Immune Competent Murine Fetuses." The adviser is Prof. Janice Greenwood.

The final examination of MLA candidate Nancy Yu, Landscape Architecture, is May 7 at 1 p.m. in Landscape Architecture 202. The thesis is "The Courtyard Housing Form as a Response to Human Needs, Culture and Environment." The adviser is Prof. Cecelia Paine.

The final examination of Tinghe Zhao, an M.Sc. candidate in the Department of Chemistry and Biochemistry, is May 7 at 2 p.m. in Chemistry/Microbiology 370. The thesis is "Morphological Stability and Surface Growth Mechanism Studies in Electrocrystallization of Copper." The adviser is Prof. Jacek Lipkowski.

COMMUNITY EVENTS

Woman to Woman, a local feminist chorus, is releasing its first recording at a concert May 15 at 8 p.m. at Westley United Church, 6 Cambridge St., Cambridge. Tickets for the concert are \$10 and \$7 and are available at the Stone Store in Guelph.

The Waterloo-Wellington Wildflower Society will hold its annual sale of native perennials May 15 from 7 a.m. to noon at the Guelph Farmers' Market. Proceeds go towards conservation of natural areas in Canada.

Guelph and Wellington County Master Gardeners will hold their annual plant sale May 8 from 8:30 to 10:30 a.m. at the Guelph Turfgrass Institute. The gardeners will also be

available to answer gardening questions Saturdays from 8 a.m. to noon at the Guelph Farmers' Market until the end of June.

The Guelph chapter of the International Association of Administrative Professionals will meet May 12 at 6 p.m. at the Guelph Country Club. For more information, call Rose Shimoji at 822-0878.

Gerald Neufeld will conduct the Guelph Chamber Choir, Tactus and the K-W Philharmonic Chamber Choir in a performance of Monteverdi's *Vespers* May 9 at 8 p.m. at the River Run Centre. For ticket information, call 763-3000.

The Guelph Arts Council is calling for nominations for its 1999 Heritage Awards, which honour individuals, organizations, companies and institutions that have restored, preserved or developed heritage properties in Guelph. This year's jurors include retired U of G history professor Gil Steller and landscape architect Chris Campbell, a 1989 BLA graduate of U of G. Nomination deadline is May 15. For more information and nomination forms, call 836-3280.

Victory Public School will hold its 38th annual dessert party and fun fair May 27 from 6 to 8 p.m. at 135 Exhibition St. The evening includes a silent auction. Proceeds support programs at the school.

The Guelph Arts Council (GAC) has published a new brochure called "A Guide to Public Art in Guelph," which provides descriptions and photographs of public art in various locations throughout the city. The brochure is available at local galleries and museums, the Guelph Visitor Information Centre and at the GAC office.

The Guelph Concert Band is looking for new members. The summer performance schedule includes concerts at Riverside Park, McCrae House and the Stratford Band Shell. The band rehearses Monday nights at 7:30 p.m. at Paisley United Church. For more information, call Leslie MacDonald at 837-0276.

The Elora Festival Singers conducted by Noel Edison present an evening of Gilbert and Sullivan May 15 at 8 p.m. at Knox Presbyterian Church in Elora. Tickets are \$20 and can be purchased by calling 846-0331.

McCrae House will host its annual Poppy Push Fund-Raiser and Second World War re-creation May 8 from 10 a.m. to 4:30 p.m.

The Poetry Break Reading Series at Take-A-Break Coffee Shop in Fergus features poet and writer Jacqueline Johnson and artist Susan Johnson May 27 at 8 p.m. New writers are encouraged to share their work during an open-mike portion of the program.



U E L P H

VOL. 43, NO. 10

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IN THIS ISSUE

3 **MEET** U of G's new development team.

4 **STUDENT** Housing Services makes room for the millennium.

4 **NEW** criminal justice and public policy program proves popular.

5 **MICROSCOPE** to open window on molecular world.

7 **FORMER** associate VP honoured.

Human Rights & Equity Director Named

PATRICK CASE, former equity adviser for the Toronto District School Board, has been appointed director of the Human Rights and Equity Office, effective July 1.

Brian Sullivan, associate vice-president (student affairs) and chair of the search committee, says the committee was "delighted" to recommend Case to president Mordechai Rozanski.

"It was a very rigorous and comprehensive search," says Sullivan. "The position was advertised across Canada, and the committee ensured that the ads were placed in publications that are widely read by equity-seeking groups and people in this field."

Other members of the search committee were Prof. Rickey Yada, chair of the Department of Food Science; Prof. Bruce Koenig, Literatures and Performance Studies in English; Marg Carter, Environmental Biology; Melanie Howarth, Human Resources; undergraduate student Lisa Amin; graduate student Lesley Reed; and Prof. Isobel Heathcote, acting dean of graduate studies.

The final four short-listed candidates visited the campus during the first week of April and made public presentations to faculty, staff and students. The committee received

Continued on page 2



A MODEL STUDENT

Fine art student Shauna Cake is designing a Web page that will allow computer users to take a virtual stroll through the Donald Forster Sculpture Park adjoining the Macdonald Stewart Art Centre. See story on page 7.

PHOTO BY DEAN PALMER/SCENARIO IMAGING

English Prof Wins OCUFA Award

Teaching excellence earns third award in a year

COMIC BOOKS in a university class on Shakespeare? Prof. Daniel Fischlin, School of Literatures and Performance Studies in English, chuckles as he recalls the former student who introduced him to the *Sandman* series of so-called "graphic novels," which he and schoolmates in his native Montreal would have labelled comic books.

Skeptical at first, Fischlin discovered a sophisticated wit and intelligence in the brightly coloured pages and a lively narrative that evoked themes from the Western literary canon, including his beloved Shakespeare. Today, he refers to the series regularly in the classroom. He even devoted an entire section of his soon-to-be-released book on *Shakespearean adaptation to discussion of the Sandman*.

"If you want to connect with students, you have to listen to what they're into and open yourself to their culture," says Fischlin, who last week received one of eight 1998 teaching awards given by the Ontario Confederation of University Faculty Associations (OCUFA).



Prof. Daniel Fischlin
PHOTO BY DEAN PALMER

"Academic training in a particular discipline is all fine and good," he says, "but when you're trying to get through to students, you have to be willing to modify that training."

The OCUFA awards were established in 1973 and have been presented annually to honour professors and, since 1990, academic librarians. This year's awards reception took place in Toronto May 14.

"I didn't think I stood a chance — I'm still relatively junior and this is a lifetime award," says Fischlin, who is currently on research leave writing several books. "This is once in a career."

So, presumably, is collecting three teaching awards within a year. Fischlin's OCUFA award caps teaching awards he won last year from both the College of Arts and the U of G Faculty Association. He is also the fourth College of Arts faculty member to win an OCUFA award in as many years.

Fischlin joined Guelph in 1995, after completing his PhD at York University and serving as a seasonal lecturer at several universities. Besides the Shakespeare course, he has taught the "Colonial Encounters" course on writings by and about explorers and is now planning a graduate-level offering on "Historiography and Literary Theory," which will examine how history is written and interpreted.

Continued on page 8

Guelph Tops System Average on Performance Indicators

Graduation, employment, default rates posted on Web

THE UNIVERSITY of Guelph exceeded the system average in graduation rates and employment rates, according to OSAP indicators released by universities across the province May 14. Guelph also did better than the system average on default rates, with fewer Guelph students defaulting on student loans.

The performance indicators were posted on the U of G Web site last Friday in response to the Ministry of Education and Training's (MET) new 1998/1999 OSAP policy. The policy requires universities to report on indicators for students on employment rates, graduation rates and student loan default rates. MET used existing data sources to calculate graduation and default rates. Employment rate data were collected through a graduate survey conducted by the Ontario Universities' Application Centre (OUAC).

"Although a university education is not just about getting jobs, given MET's directive under the OSAP policy to publish these indicators, we are delighted that universities have done so well," said Prof. Ken Grant, director of institutional analysis and planning, who helped co-ordinate the project. "We've known from other statistical reports that university graduates have the highest rates of employment across any category of educational attainment. These results show that the success rate is distributed across the full range of disciplines taught at our universities."

Graduates of Guelph did particularly well, said Grant. "The quality of our students, faculty and programs are evidenced by our strong graduation and employment rates. In fact, two years after graduation, we had 100-per-cent employment in seven

of the 14 program areas and were above the system average in the other seven categories."

The overall employment rates — or Ontario university system average — for 1996 graduates of undergraduate degree programs is 90.79 per cent six months after graduation and 96.74 per cent two years after graduation. Guelph's averages of 91.4 per cent and 97.4 per cent, respectively, are somewhat above the system average.

To determine employment rates of recent graduates, OUAC conducted a survey of all 1996 graduates of undergraduate degree programs. Graduates were asked 12 questions regarding their employment situation six months and two years after graduation. Between Dec. 29, 1998, and Jan. 12, 1999, a total of 52,175 surveys were mailed out to these

Continued on page 8

SENATE REPORT

Provincial budget good first signal of government response to universities

THE RECENT PROVINCIAL BUDGET was a good first, if limited, signal that the current government is responding to concerns about the future of post-secondary education, president Mordechai Rozanski told Senate May 11. The budget promises significant new spending for capital investments and

deferred-maintenance projects related to the "double cohort" of students expected in 2003, as well as additional research support and student assistance. The disappointment is that operating budgets for the next year have only increased by one per cent, far short of the revenue needed, he said.

The government has pledged \$742 million in capital support for colleges and universities for 1999/2000. Of that, \$660 million is targeted for major capital projects, \$62.5 million for facilities renewal (\$41.7 million for universities) and \$19.4 million for earlier projects.

The hoist in facilities renewal funding, if al-

located as in the past, could see Guelph's annual \$1,035-million allocation increase to about \$2.7 million, said Rozanski. This would allow U of G to proceed with much-needed renovations. But the increase still falls well short of the \$6 million in priority projects identified each year on campus, he said.

The \$742 million falls short of the \$2 billion Ontario universities have been requesting to deal with quality issues surrounding current capital and deferred-maintenance needs and the expected 40-per-cent increase in university enrolments over the next 10 years, said Rozanski. It's projected that an additional 53,900 to 88,900 students will seek places at university over the next decade because of changing demographics, higher participation rates, more employers asking for university degrees and the elimination of Grade 13 in Ontario. The hope is that this capital infusion is but the first instalment of additional resources to come in each of the next few years, he said.

The budget's pledge for new research support involves a \$250-million Ontario Innovation Trust, which is intended to match federal Canada Foundation for Innovation (CFI) allocations. This funding may lessen to some degree the need for universities to seek private-sector support for CFI projects, Rozanski said. This does not, however, respond to Ontario universities' request to boost the research infrastructure envelope beyond its \$27-million level, he said.

The government promise on new student aid takes the form of a program called "Aiming for the Top," which, at maturity, will allocate \$35 million to 10,000 students in tuition scholarships of up to \$3,500 a year for up to four years. The program is

to start in September 2000 with 2,500 scholarships that will be based both on merit and financial need. The president said this development could provide good opportunities for matched funding during U of G's upcoming capital campaign.

The province has also announced that it has reached an agreement with Ottawa on harmonization of federal and provincial student aid programs and on the Canadian Millennium Scholarship Board. The Ontario government claims these agreements will reduce student debt, said Rozanski, but universities are waiting to see more details.

The government also announced expansion of the Access to Opportunities Program, providing funding to fully support proposals presented to the Ministry of Education and Training in November 1998 by colleges and universities. Guelph expects to receive confirmation soon of its multi-year allocation to support graduate and undergraduate growth in computing science and engineering programs, said Rozanski.

The most disappointing news in the budget, he said, was confirmation that universities will receive only a one-per-cent increase in basic operating grants for 1999/2000. This small increase is of particular concern at a time when universities must begin hiring new faculty and staff in response to both the double cohort and the retirement bulge that is expected to occur about the same

time, he said.

Rozanski said that although the budget provides significant new investment in a number of important areas, he and his colleagues at the Council of Ontario Universities, other members of the university community and friends of Ontario universities will continue to press for increases in operating support, research support and funding to restore quality losses suffered over the last five years.

SELECTION COMMITTEE MEMBERS APPROVED

Senate approved the membership slate for selection committees for provost and vice-president (academic) and for vice-president (research). They will select candidates to succeed current provost Iain Campbell, who will not pursue a second term when his first term expires July 1, 2000, and vice-president (research) Larry Milligan, whose second term ends in August 2000.

Members of the selection committee for provost and vice-president (academic) are College of Arts dean Carole Stewart; Prof. Norman Gibbins, Microbiology; Prof. Stephen Kruth, chair of the Department of Clinical Studies; Prof. Tom Michaels, associate dean of OAC; undergraduate student Nadia Zelisko; graduate student Laurie Halfpenny; and staff member Nancy Robinson, Office of the Provost.

Members of the selection com-

mittee for vice-president (research) are OAC dean Roh McLaughlin; Prof. Fred Evers, Sociology and Anthropology; Prof. Patricia Shewen, chair of the Department of Pathobiology; Prof. Alan Wildeman, Molecular Biology and Genetics; graduate student James Rodgers; and staff member Tracy Alherico, Human Resources.

Senate also approved the membership of Senate boards and committees for 1999/2000; the appointment of Prof. Chris McKenna, chair of the Department of Economics, as Senate's representative on Board of Governors; and the reappointment of Prof. Maureen Mancuso, chair of the Department of Political Science, as U of G's Council of Ontario Universities (COU) colleague. The COU alternate is Prof. Donna Woolcott, chair of the Department of Family Relations and Applied Nutrition.

REPORTING STRUCTURE FOR VP (RESEARCH) TO CHANGE

Senate approved a change, recommended by the president, provost and vice-president (research), in the reporting structure of the Office of Research. Currently the vice-president (research) reports to the provost and vice-president (academic), but effective with the appointment of the next vice-president (research) in 2000, the operations of the Office of Research will report directly to the president. This will re-

turn the reporting lines to those in place when the position of vice-president (research) was created.

Prof. David Prescott, Economics, vice-chair of the Senate Committee on University Planning, said the change reflects the research-intensiveness of U of G internally and the high profile of research-intensiveness externally. Comparisons are increasingly being made about Canadian universities in terms of those that are research-intensive and those that are not, he said, so it's important that U of G's reporting structure reinforce and profile Guelph's commitment to research.

UPDATE ON COLLEAGUE

Prof. Alastair Summerlee, associate vice-president (academic), reported to Senate that Colleague, U of G's new student information system, is functioning. The major issue now, he said, is the speed of the system, which has raised concerns among students involved in dropping and adding courses. He thanked students for their patience and understanding and asked all users of the system to be patient while the problems are being ironed out. He also noted that training on the system is under way and will continue across campus on the basis of need.

Summerlee commended staff and faculty for the considerable efforts they have put into Colleague and thanked all those who have been involved in its implementation.

Director Brings Expertise in Human Rights, Employment Equity

Continued from page 1

significant feedback from the community based on these presentations, says Sullivan. "We were very pleased with the quality and strength of the applicant pool, and the final four candidates were all outstanding," he says.

A 1986 LLB graduate of Osgoode Hall Law School who is now completing a master's degree in constitutional law, Case practised family, human rights and immigration law before joining the Toronto District School Board in 1991. He played a leading role in developing and imple-

menting a human rights policy for the Toronto board, was a senior adviser to the director, senior administration and school principals on human rights and employment equity, and worked closely with students to develop peer education programs. He also participated in the board's periodic review of personnel policies, procedures and practices for employment equity purposes between 1991 and 1997 and was a key participant in the board's employment equity and systems reviews in 1995/96.

Case is one of seven people selected from across Canada to serve as a member of the Equality Rights Panel of the Court Challenges Program of Canada. This organization annually grants \$2.75 million to equality rights litigation efforts throughout Canada. Case began a two-year term in 1998. He also contributed to the 1994 *Report of the Royal Commission on Racism in the Criminal Justice System* and recently co-taught a course on "African Canadians: Racism and the Law" at Osgoode.

"I am thrilled to be joining Guelph," says Case. "The University has a strong reputation for its commitment to equity issues and I am eager to join the community and make a contribution to the final stages of developing Guelph's new umbrella human rights policy."

Rozanski says he is "delighted" that Case is joining U of G. "His strong people skills, his demonstrated skill and expertise in human rights and employment equity in the public education system, and his formal legal training will be invaluable

to the University. I am confident that the University community will welcome him warmly and offer its support."

The president also expressed his great appreciation to acting human rights and equity director Jodie McConnell for her valuable interim leadership over the past year. "She made significant contributions to advancing our human rights and equity objectives, and I am grateful to her and her colleagues in the Human Rights and Equity Office."

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UNIVERSITY OF GUELPH

PRESIDENT'S COUNCIL VISITS CAMPUS

President Mordechai Rozanski hosted 200 members of U of G's President's Council at a luncheon May 15. The President's Council recognizes those who have given \$1,000 or more to the University in the previous year. The annual luncheon is an opportunity for the University to say "thank you" and share news of the many ways the support of President's Council members has contributed to the quality of U of G.

U OF G HOSTS UNIVERSITY ALUMNI IN CHICAGO

U of G hosted the 13th annual All-Canadian Universities Alumni Dinner May 5 in Chicago. This was the second time Guelph has hosted the event, which began in 1987 to bring together graduates of all Canadian universities who live in the Chicago area. President Mordechai Rozanski and John Mahley, vice-president (development and public affairs), represented U of G, and Prof. Maureen Mancuso, chair of the Department of Political Science, was the guest speaker. Mancuso, who is lead author of the recent book *A Question of Ethics: Canadians Speak Out*, discussed Canadians' opinions about the behaviour of their politicians.

TIMES AD WINS GOLD

A U of G recruitment advertisement that appeared in the Nov. 1 *Sunday New York Times* education supplement has won a gold medal as best newspaper advertising/single ad from the Atlanta-based *Admissions Marketing Report*, the U.S. national newspaper of admissions marketing. Produced by Admission Services, the ad was based on the popular U of G brochure "So You Think You Know Canada, Eh?" showing a picture of a man in a snow-covered park. The ad described the quality of education in Canada and at Guelph and included quotes from several U.S. publications lauding U of G and other Canadian universities.

WHITESIDE TO SERVE AS ACTING ASSOCIATE VP

Brenda Whiteside, academic assistant to the provost, has agreed to act as associate vice-president (student affairs), effective June 21. She will serve in this position until a permanent appointment is made.

ART CENTRE HONOURED

The Ontario Association of Art Galleries has awarded its 1998 Design Award to the Macdonald Stewart Art Centre for the invitation for the exhibition "Micah Lexier: Self-Portrait as a Proposition," which ran from March to May 1998. The invitation was created by artist Micah Lexier. Art centre director Judith Nasby accepted the award last month at a ceremony at the Royal Ontario Museum.

Development Team Launched

Decentralized structure will strengthen campus links



College deans and members of D&PA's development team gather for a photo. Seated, from left, are Bruce Hill, Ross Butler, Paulette Samson, Gerald Manning, Michael Nightingale, Laura Manning, Rob McLaughlin and Joe Mokanski (representing Robert McCrindle). Standing are Robert Sheath, Rudy Putns, Tim Mau, John Mabley, William Rowe and Alan Meek.

PHOTO BY DEAN PALMER/SCENARIO IMAGING

THE LANDSCAPE of fund-raising in Canada is changing, and U of G's development staff are keeping pace, with the formation of a new team of professionals working in college-based offices across campus. Five new senior development managers will work as fund-raising strategists and will form direct links between college deans and Development and Public Affairs (D&PA), says vice-president John Mahley.

"Our development team will work directly with deans, faculty, alumni, staff and students to identify the strengths and needs within each college," he says. "By relating college goals to the system support available at Alumni House—alumni records, prospect research, treasury and donor recognition—the new senior development managers will be better able to systematically identify fund-raising opportunities and translate them into institutional support."

- Bruce Hill, a D&PA staff member since 1997, has assumed the development function for the College of Arts, working with acting dean Gerald Manning.

- The colleges of Biological Science and Physical and Engineering Science are represented by William Rowe, a newcomer to U of G who left a development position at the University of Waterloo to take on this new role at Guelph, where he is D&PA's contact with deans Robert Sheath and Robert McCrindle.

- The College of Social and Applied Human Sciences welcomes one of its own graduates to work with dean Michael Nightingale. Tim Mau, who earned his BA from Guelph in 1992 and MA in 1993, is remembered as a President's Scholar, all-star Gryphon basketball player and Winegard Medalist, and was general manager of the 1998 Ontario Summer Games in Guelph.

- OAC dean Rob McLaughlin will work directly with senior development manager Paulette Samson, a longtime D&PA employee who has moved from Alumni House to Johnston Hall.

- OVC dean Alan Meek welcomes Laura Manning, a 1997 B.Comm.

graduate of Guelph, who moves across campus from a position as research analyst in Institutional Analysis and Planning. OVC's Pet Trust will continue to be the responsibility of Maire Pratschke, a member of the OVC dean's office.

Senior development managers report to the deans and to D&PA executive director of campaign programs Rudy Putns, who says the distributed structure is common among larger North American universities and is an indication of Guelph's growth and development as a major research and teaching institution.

"A centralized development organization can no longer address D&PA's need to fully understand the depth of faculty expertise and the academic priorities within each college," he says.

The senior development managers will give college deans and faculty a direct voice in the planning and implementation of fund-raising initiatives. Working with the deans, development managers will also be responsible for the cultivation of donor prospects—for U of G's next major campaign as well as fund-raising initiatives such as matching-grant opportunities proposed by government and projects that address unique college needs.

The trend towards matched funding has changed the landscape of how fund-raising is done, says Putns. There is great leverage in the idea that a donor's gift will be doubled in value, as evidenced by the success of U of G's ACCESS Fund, which was launched in response to the provincial government's Ontario Student Opportunity Trust Fund (OSOTF) in 1996. When the final closing date for OSOTF matching gifts arrived March 31, 1999, U of G's endowed resources for student assistance had increased by \$16.8 million from gifts by 5,800 donors. As a result, annual allocations for scholarships and bursaries have grown to almost \$10 million.

Matched funding is also a major part of more recent provincial and federal programs, including the Ontario Graduate Scholarship, the Access to Opportunities Program, the

Canada Foundation for Innovation and the Ontario Research and Development Challenge Fund.

Putns says he and D&PA's team of senior development managers are working closely with Prof. Ross Hallett, assistant vice-president (research infrastructure programs), and deans to ensure that U of G seizes every opportunity to lever public matching funds with private gifts.

"Two of the most important benefits of the development/academic link will be information sharing across campus and stewardship of donors," says Putns.

Stewardship is important in all development activities, but particularly in the area of bequests and planned giving. This portfolio is now under the direction of Ross Butler, a 1981 BA graduate of Guelph who recently joined U of G from the Financial Concept Group, where he was a financial planning consultant.

Information sharing is equally important in helping to identify donor prospects among recent graduates, says Putns. "One-third of Guelph's current alumni constituency graduated since 1990, and the people who know them best are faculty. It is essential that we involve faculty and deans in the development process and that we begin to engage students in alumni programs before they graduate."

With Ontario standing last among the provinces in government support for post-secondary education, and the growing trend in matched funding, university fund-raising efforts in the private sector must become more effective, he says. "That means emphasizing our greatest needs, identifying key prospects and targeting our message more carefully."

While the colleges begin to work with D&PA's new senior development managers, early preparations for the University's next major campaign continue. The next few months will be spent implementing and analysing the outcomes of a feasibility survey that will help shape campaign goals and proposals, which will be used for major gift calls during the coming year.

BY MARY DICKESON

PEOPLE

POETRY WINS AWARD

Prof. Janice Kulyk Keefer, Literatures and Performance Studies in English, has received the Canadian Authors Association's Award for Poetry for her recent book, *Marrying the Sea*. The book has also been nominated for the Pat Lowther Memorial Award for best book of poetry by a Canadian woman.

MUYLAERT NAMED OUA**MALE 3M COACH OF THE YEAR**

Men's hockey coach Marlin Muylaert has been named OUA Male 3M Coach of the Year in recognition of his years of coaching accomplishments and contributions to the game of hockey. Over the past 11 years as a coach at U of G, Muylaert has led the hockey Gryphons to two Ontario championships, a national championship and eight successive divisional titles. Earlier this year, he was head coach of Canada's entry at the World Student Games.

PIG PENS CAPTURES PRIZE

Owen Roberts of the Office of Research has been awarded the bronze award for best newsletter from Agricultural Communicators in Education for the publication *Pig Pens*. The award will be presented next month at the organization's annual meeting in Tennessee, where Roberts will also present a poster session.

NIGHTINGALE FOCUS OF TALKS

Prof. Lynn McDonald, Sociology and Anthropology, gave a paper on "Florence Nightingale's Vision of a Public Health-Care System" at a conference at the University of Texas, Austin, in April. She also gave a talk this month on the *Collected Works of Florence Nightingale* to the Quo Vadis School of Nursing Alumnae Association at Jubilee Hospital in Etobicoke.

INTERNATIONAL OFFICERS GATHER ON CAMPUS

Prof. Jim Shute, director of the Centre for International Programs, chaired an all-day meeting of international liaison officers from 12 Ontario universities on campus last month. Shute and other international program managers also met with Thomas Rosswall, the rector of the Swedish University of Agricultural Sciences, and Ola Roman of Sweden's National Agency for Higher Education, who toured U of G as part of a Canada-wide visit.

THAI STUDENTS HONOURED

Five students from Thailand participating in the Golden Jubilee Scholarship Program were honoured at a reception last month sponsored by the Centre for International Programs. The students spent the past academic year studying at Guelph and will continue their studies this fall at the University of Khan Kaen in Thailand. The students are Nitikul Chantawira, Lampong Klomkul, Sommart Klummo, Salithip Rattanawan and Anchalee Waenwisat.

Making Room for the Millennium

Student Housing Services discusses ways to meet increased demand for residence space

IF AL McINNIS listens carefully, he can hear the echo coming. That's the sound of new students in the "baby boom echo" generation and "double cohort" who are expected to arrive at Guelph during the first half of the next decade looking for a room in campus residences.

To meet that increased demand on Guelph's residences during the next five years, the director of Student Housing Services is heading a consultation process to update the department's five-year-old plan for campus housing services.

Over the past year, Student Housing Services has run meetings and workshops designed to solicit comment from various groups, including residence managers and assistants and support staff, and to make recommendations for the next five years. During the most recent session in early April, McInnis met with senior administrators, academic counsellors, Physical Resources staff and student groups to discuss proposed changes to housing services and amenities and to determine how to house more students.

U of G expects to add 400 to 500 single rooms by 2001 — and per-

haps another 500 to 600 in 2003 — to accommodate increased enrolment among university-age children of the ubiquitous baby boomers.

"A plan along these lines has been developed with Physical Resources for discussion with senior administration and the Board of Governors Physical Resources and Property Committee," says Brian Sullivan, associate vice-president (student affairs).

But McInnis says even those increases will be insufficient to accommodate all of Guelph's share of the anticipated double cohort.

The elimination of the OAC year in high school is expected to cause university enrolment to spike across the province. Based on Guelph's share of the projected increase, and assuming that 40 per cent of new students will look for a place to live on campus, U of G will probably see additional demand for residence space increase to a cumulative peak of 1,336 beds in 2004 before settling to just under 1,000 in 2007.

"We can't build extra capacity to deal with the peak projected additional demand without increasing vacancies later," says McInnis.

U of G will establish a building

committee to consider housing options, and Student Housing Services will consider ways of expanding the existing supply of off-campus housing, including more external advertising.

Among the issues and ideas raised by participants at the April workshop:

- *Changing student population.* U of G will have to consider the needs of younger students, perhaps through a guarantee of residence until age 19. Residences might become a place for new forms of learning such as Web-based courses. U of G might explore alumni mentoring programs for first-year students and how to balance higher numbers of new students with returning students to serve as role models.
- *Technology.* Residence rooms will

need to accommodate changing computer technology, such as equipment for students taking Web-based courses.

- *Accommodation priorities.* U of G may have to establish priorities for accommodating various groups of students, such as students with special needs and international students.
- *Safety and security.* Participants discussed a community policing model, a security program for off-campus issues, updating of security policies for younger students and improved building security systems.

McInnis anticipates that his department will also need to plan for a more diverse student population. More and improved staff training will be needed to handle more — and possibly more demanding —

residence students, says residence education consultant Julie West.

"Students will need higher marks because there will be greater competition for university spaces," she says. "To maintain those marks, they need to spend more time studying and have an environment conducive to studying. We normally provide that, but depending on the numbers of students, there's a potential for higher pressure to ensure that we provide that environment."

Students will be invited next fall to take part in focus groups on housing services.

Anyone wishing to comment on aspects of student housing policy or supply at Guelph can send e-mail to amc@uoguelph.ca or write to McInnis in Mountain Hall.

BY ANDREW VOWLES

Criminal Justice, Public Policy Program Draws Wide Interest

Unique new undergraduate major builds on strengths of two departments

CONVERSATIONS around Canadians' iced moccasins are rarely so heated as when they involve the perceived failings of our lawmakers and the criminal justice system. Crime may not pay, but it's astoundingly popular.

Two U of G departments, responding to student interest in pursuing scholarly inquiry on the same subject, are collaborating to offer a program unique in Canada, a new undergraduate major in criminal justice and public policy.

The departments of Sociology and Anthropology and Political Science came up with the idea for the joint program, and since then have been busy planning, formulating and marketing it. The response has been phenomenal, with some 400 applications received to date, says Prof. Ron Hinch, chair of the Department of Sociology and Anthropology.

"I've never seen anything like it," he says. "The 400 applicants are just our numbers from potential first-

year students. It doesn't count current undergrads who may want to redesign their program to enrol. And there's been no drop-off in applicants to either our department or the Department of Political Science. In fact, we've recorded increases there as well."

Both Hinch and Prof. Maureen Mancuso, chair of the Department of Political Science, say they're being contacted daily by students interested in applying to the program.

Building on strengths in the two departments, the criminal justice and public policy program is unique because it unites these two areas to provide a comprehensive curriculum for a variety of students — those who seek a career in public policy-making or criminal justice, those who plan to pursue an advanced degree or those who simply wish to explore issues in the field.

"The program examines the justice system within a framework of political and spending priorities," says Mancuso. "We'll examine the

context of criminal justice as it relates to and where it fits in with health care, social programs and other public demands."

Adds Hinch: "The criminal justice system without the political would be very narrow, so by joining forces, we can offer the conceptual and methodological tools for further study."

The program received Senate approval last year and officially began May 1. It will offer students three options. Students in the honours program can complete either a major or a minor in criminal justice and public policy; students in the general program can complete an area of concentration.

In addition to courses already offered in the two departments, the program features required and optional courses in philosophy, psychology and history. New courses are being developed on crime and criminal justice, criminological theory, serial murder, young offenders, corrections and penology, and police in society.

BY ALEXANDER WOOLEY

IN MEMORIAM

Yvonne Harrison Alexander, wife of U of G chancellor Lincoln Alexander, died May 15. Heartfelt condolences have been sent on behalf of the University by president Mordechai Rozanski.

"Our chancellor is perhaps the most admired and respected public figure in Ontario," says Rozanski. "He leads our university with grace and dignity. What many don't know is that in addition to the Lincoln Alexander we know and love, there is also a very private man, a man who places family life above all else. Yvonne has been his partner for more than 50 years. At a time like this, we pause in our daily activities to mourn the loss of Yvonne and to express our sympathies and offer our support to Lincoln and his family."

The Alexanders were married Sept. 10, 1948, in Hamilton. The couple met during a dance in Toronto in the 1940s, and Lincoln Alexander chose work in Hamilton over Ottawa because it was her home town. They have one son, Keith; a daughter-in-law, Joyce; and two granddaughters, Erika and Marissa.

Though intensely private, Yvonne Alexander acted as partner and counsel to her husband throughout his distinguished career of public service. In keeping with her wishes, a private funeral was held.

U of G is planning a memorial expression and will announce details after consultation with the family. Donations to the Halton-Wentworth Alzheimer Foundation may be made in her name.



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Microscope to Open Window on Molecular World

NSERC-funded electron microscope will draw users from universities and industry across Canada and abroad

U OF G RESEARCHERS have landed more than \$500,000 in federal funding for a state-of-the-art electron microscope that will open a window on the molecular workings of everything from ice cream to bacterial proteins to polymers to plant roots.

The eight faculty from three colleges expect the new instrument to give them a clearer view of a range of structures than that afforded by other electron microscopes at Guelph and elsewhere. Most important, the new cryo-transmission electron microscope (TEM) will allow scientists to study "frozen-hydrated" biological materials preserved in their natural state, a huge advance over earlier generations of electron microscopes.

Led by Prof. George Harauz, Molecular Biology and Genetics, the group learned early this spring that the Natural Sciences and Engineering Research Council (NSERC) had approved a major installation grant worth \$535,000 to buy the device. Funding of attendant renovation and installation costs will also come from the College of Biological Science and pertinent departments and from the office of the vice-president (research).

The researchers plan to purchase the microscope later this year and hope to see it operating by the beginning of 2000. Installed in the Guelph Regional S/TEM Facility (GRSF) — located in the basement of the Chemistry and Microbiology Building — the device will serve U of G faculty and is expected to attract users from other universities and industry in Canada and abroad.

"This machine brings us up to the top in Canada among microscopy facilities," says Prof. Terry Beveridge, Microbiology, one of the grant applicants and the GRSF coordinator. He explains that the only other device of its type in Canada, housed in a government-run laboratory for infectious diseases in Winnipeg, offers restricted access to external users.

In addition to Harauz and Beveridge, participants in the application were Prof. David Evans, chair of the Department of Molecular Biology and Genetics; Prof. Larry Peterson, chair of the Department of Botany; CBS dean Bob Sheath; Prof. Rickey Yada, chair of the Department of Food Science; Prof. Doug Goff, Food Science; and Prof. John Dutcher, Physics. Other Guelph users will include at least 30 students and post-doctoral fellows.

Cooled by liquid nitrogen, the device "snap-freezes" specimens, essentially preserving samples in an ultra-thin layer of ice. "The beauty of cryo-TEM is that you don't need to dry the specimen at all," says Harauz. "You can image cells with their natural water content, or molecules directly in solution."

He says it's impossible to view biological samples *au naturel* with other transmission electron microscopes and scanning electron



Prof. George Harauz leads a team of researchers who have received NSERC funding for a new state-of-the-art electron microscope. PHOTO BY DEAN PALMER/SCENARIO IMAGING

microscopes (SEM) in the GRSF and elsewhere on campus. Transmission electron microscopes send a stream of electrons through a sample; in their SEM cousins, the electron beam scans only the surface of the sample. In both types, samples are placed in a vacuum chamber and bombarded with electrons after being fixed with harsh chemicals.

Besides allowing a clear view of an unadulterated specimen, the new microscope uses a digital camera that will provide a cleaner image in less time, further preventing degradation caused by heating from the electron beam. The new instrument will be smaller and easier to use, which will reduce the training required by operators, says Beveridge.

Among its uses by U of G researchers:

- Harauz will use the microscope to view membrane proteins and structural changes wrought by, for example, multiple sclerosis. "George is probably one of the best people in the whole country to use electron microscopes to study very small biological particles and make sense of them," says Beveridge.
- Beveridge is among the world's top microscopists studying molecules found on the surface of bacteria. Besides investigating vaccines

and alternative methods of delivering infection-fighting drugs, he has spent nearly two decades studying bacteria that live in metal-contaminated environments. His lab was among the first to study biogeochemistry, whose applications include using microbes to sponge up dilute metals and other toxic contaminants found, for example, in mining wastes. One of Beveridge's graduate students, Jeff McLean, is studying a micro-organism that might prove a useful scavenger of chromium-arsenic and copper wastes produced in making pressure-treated lumber.

- In the Department of Botany, Peterson runs one of three major labs worldwide studying the structure of mycorrhizas, which are mutualistic associations between fungi and the roots of most plants, including important agricultural and forest species. "The new equipment is going to enhance studies of the cell biology of these associations," he says, pointing to the advantage of observing specimens without having to fix them. He and his students will use the new instrument in conjunction with the existing confocal light microscope housed in the department to study alterations in the structures of root cells colonized by fungi.

• "The best way to see food structure is with an electron microscope," says Goff, who already uses more conventional instruments housed in Laboratory Services. "With the cryo-TEM, we're able to look at any kind of food structure fully intact. We just have to be able to section it." For example, the instrument will prove ideal in studies of why frozen blueberries used in muffins are prone to cracking during baking, he says. His lab in the newly refurbished Food Science Building is one of a handful worldwide studying the structure of ice cream. The new instrument will give him a flash-frozen look at fats in ice cream and at the formation of ice crystals, which directly affect the product's shelf life. "The cryo-TEM is a beautiful tool because you're already dealing with a frozen product," he says.

• Dutcher plans to use the instrument to study formation patterns in thin films made of composite materials. "It will broaden the range of materials that can be studied," he says. His lab works with such companies as 3M on coatings and adhesives.

Besides their need for a more sophisticated instrument, members of the group had found common ground during recent discussions of joint research initiatives, notably funding applications to the Canada Foundation for Innovation and the Ontario Research and Development Challenge Fund. "The microscope application has drawn together people from a broad range of disciplines," says Harauz.

The instrument will also prove a drawing card for researchers from Canada and abroad, he says. "This extends the range of capabilities we can offer them."

During the last three years, the GRSF has attracted about 75 senior researchers from North America, Europe and Asia, 45 graduate students and 30 post-doctoral fellows. U of G users account for one-third to one-half of the centre's regular clients.

The facility was established in 1980 with NSERC funding, initially to serve nearby universities and industry, says Beveridge. In recent years, "we've had more work from other provinces, states and countries than from other local universities and industries."

Microscopists near and far — including most of the U of G principals involved in the cryo-TEM application — will be on campus May 26 to 28 for the annual general meeting of the Microscopical Society of Canada. Called "Eye on Imaging," the meeting will bring together about 250 participants from Ontario, Quebec, Michigan, New York and Ohio. Speakers include Dutcher, who will discuss microscopy in studying thin polymer films, and Prof. Jacek Lipkowski, Chemistry and Biochemistry, who studies metal-solution interfaces.

BY ANDREW VOWLES

German Chemist is Winegard Visiting Professor

Visitor will give three lectures on aspects of electrochemistry

WINEGARD visiting professor Dieter Kolb, head of the department of chemistry at Germany's University of Ulm, will give three public lectures on aspects of electrochemistry this month at U of G.

Hosted by the Department of Chemistry and Biochemistry and the Electrochemical Technology Centre,

Kolb will discuss "What is Electrochemical Surface Science?" May 25 at 3 p.m. in Room 160 of the Chemistry and Microbiology Building. "An Atomistic View on Electroplating" May 26 at 3 p.m. in Room 113 of the MacNaughton Building and "Electrochemical Nanostructuring of Metal Surfaces" May 27 at 3 p.m. in C&M 160.

The author of more than 190

technical papers on electrochemical processes on metal surfaces, Kolb received the 1997 David C. Grahame Award of the Electrochemical Society, the 1994 Bourke Lecture and Medal of the Royal Society of Chemistry and the 1990 Pergamon Gold Medal of the International Society of Electrochemistry.

After completing his PhD in physics in 1969 at the Technical Uni-

versity of Munich, he spent two years at Bell Laboratories in New Jersey, then returned to Germany. He led research in electrochemical surface science at the Fritz-Haber-Institut der Max-Planck-Gesellschaft in Berlin and studied matrix-isolated metal atoms and clusters. He also taught at the Free University of Berlin before joining the University of Ulm.

The Winegard visiting professorships are named for former U of G president Bill Winegard and supported by the President's Council Fund, which covers expenses and honoraria for five visiting lecturers each year. The award rotates annually among Guelph's colleges.

For more information, call Prof. Jacek Lipkowski, Chemistry and Biochemistry, at Ext. 8543.

A BALANCING ACT

"Universities have to find a balance between encouraging faculty to pursue patentable concepts and protecting the traditional role of the academy as a forum for the open exchange of ideas."

Editor's note: University professor emeritus Bruce Sells, Molecular Biology and Genetics, was recently appointed executive director of the Canadian Federation of Biological Societies. Comprising various life sciences groups in Canada, the Ottawa-based body promotes awareness of biological science by lobbying governments and convening an annual meeting. Sells came to Guelph in 1983 as dean of the College of Biological Science after 11 years at Memorial University in Newfoundland, first as professor and director of molecular biology, then as associate dean of basic medical sciences in the Faculty of Medicine. The following is an edited transcript of a recent interview in which Sells discusses his view of research funding in Canada.

THINGS SEEM TO GO in cycles. When I completed my training in biochemistry at McGill University in 1957, there was very little support for research in Canada. American research institutions got more funding support, including St. Jude's Children's Research Hospital in Tennessee, where I spent 10 years. When Canada finally started putting more money into research and established the various granting councils, there was an attraction for me — and for many of my Canadian colleagues — to come back to Canada. Over the past 15 to 20 years, Canadian research money has decreased considerably, and many of our scientists have again been looking for greener pastures to obtain sufficient support for their work — not for larger salaries, but just for the opportunity to do what they really want to do. Over the past five or six years, with the United States providing increasing amounts of money for research and universities, our people have again tended to migrate southward.

At the same time, the competition in international science has heated up. Investigators in Canada, as everywhere else, are competing globally and need funding to be effective. In the late 1950s, when the level of research funding was very small, there was no political concern about how much was being spent. When the amount of money going into research during the '70s and early '80s increased considerably, it became more of a political thing. We have to justify to taxpayers why they're providing dollars for this activity.

Reflecting this change, some new research initiatives require universities to strike up partnerships with industry to obtain funding. The federal Networks of Centres of Excellence (NCE), for example, have been useful. They have co-ordinated research groups across the country, spun off biotechnology companies and given the taxpayer some bang for the buck. In other initiatives designed to develop partnerships and help stem the brain drain, the most recent federal budget has increased the budgets of the granting councils and developed the Canadian Institute for Health Research. These ideas are obvious attempts to display the tangible benefit flowing from those research dollars.

In talking about cycles, a major concern is: Are we worrying too much about the short-term application of our research? Ba-



sic research is not apparently "practical" in terms of a long-term vision of its application. It's curiosity-driven. In biology and life sciences, basic research asks fundamental questions about cellular processes or biological systems as scientists strive to learn more about the fundamental mechanisms of things. If we don't support these kinds of investigations, we won't have ideas in the bank to draw on for future applications. So how can we achieve the proper balance between investigator-driven and applied research? We have to have enough of both to satisfy the taxpayer that the work is justified and to ensure that we will have new ideas to draw on. I'm not saying that new ideas don't come out of applied research. But we need both.

There are numerous instances of how the findings from basic research become solutions to practical problems. Investigations of DNA early in this century were performed without knowing the real importance of the molecule. It was not until the 1950s that the scientific community accepted that DNA was indeed genetic material. Again, restriction enzymes that break the DNA molecule in unique ways had been examined, but without practical goals in mind. These two examples of fundamental curiosity-driven research have given rise to the multi-billion-dollar biotechnology industry. Examples exist in physical sciences as well. The initial interest in nuclear magnetic resonance was esoteric, investigator-driven research. That work has since given us magnetic resonance imaging, used extensively to diagnose a variety of medical disorders. Such promising avenues of investigation are frequently ignored in the commercial world as business follows different priorities.

Far from supporting only directed research, the academic world has to follow its mandate to provide new knowledge and to pass that knowledge along. Universities have to find a balance between encouraging faculty to pursue patentable

concepts and protecting the traditional role of the academy as a forum for the open exchange of ideas. Graduate students must be able to publish their results to show others how capable they are. Difficulties emerge if we go too far down the targeted research path. We won't be able to talk to one another about research, a favourite pastime for me and my colleagues. We need clear lines to indicate where the responsibilities of industry end and where the responsibilities of university begin. It's also important that government-funded partnerships be judged through peer review. If they're judged politically, then we're in trouble. Bad science may be supported just because it appears to be the thing to do.

Following on the success of the federal NCE program, there have emerged a number of new initiatives, most requiring industry partnerships so that intellectual property developed in universities can, when appropriate, be captured and commercialized. For governments, this seems a perfect approach to ensuring that Canadians derive benefits from their investment in higher education. In an ideal world, this should work. But we should recognize and guard against the pitfalls, for the ultimate benefit of both universities and industry. Although these new programs offer hope for our scientific community, will the scientist interested in laboratory curiosities be left out in the cold? And down the road, will we have the basic "money in the bank" on which to draw for targeted research? We need to strive for balance in government funding of investigator-initiated and targeted programs.

We've come a long way in the funding of research since the 1950s, when, as I recall, a project on blood preservation at McGill was supported by the Defence Research Board. More people are pursuing post-secondary education and post-graduate degrees. The whole international community depends on intellectual property and ideas. Many of the things that will be done in the next millennium will require new technologies and people educated beyond the bachelor's level. In my view, talk about Canadian productivity means intellectual productivity — computers, biotechnology, areas where we can apply our knowledge to use our raw materials more productively. It has become difficult for Canada to compete intellectually when many provincial governments view universities as an unimportant part of the inquiry into developing new technologies.

Canada has a wealth of talent in biological and life sciences. To increase public and political awareness of this resource, I plan to help showcase this talent and underline the role of research in ensuring a healthy economy through the annual meeting of the Canadian Federation of Biological Societies and by continuing the federation's liaison with like-minded organizations. For Canada to remain strong in the new millennium, we need vigorous, well-supported universities to produce graduates who have been taught to think and who understand current issues in their disciplines. Facing global competition, we must nurture the creative minds of our students to enable them to realize their full potential as individuals and to contribute to the vitality of this nation.

Y2K Marks End of Four Computer Applications

Users should download files now to avoid losing data

WITH THE CLOCK ticking down to the Year 2000, now's the time to find a new home for data you might have stored on several long-standing — and soon-to-be-replaced — computer applications.

By summer's end, you'll need to download files from four older systems to current computer systems or risk losing the information as the University completes its switch to

Y2K-compliant equipment and applications, says Doug Blain, manager of Systems Technical Support in Computing and Communications Services (CCS) and chair of Guelph's Year 2000 Committee.

Four applications that are not Y2K-compliant will be affected — the financial information system on the University's VM/CMS mainframe and three systems that are

used in computer-aided learning — CaDrill, VITAL and CoSy. These legacy systems are not Y2K-compliant and might have encountered problems in handling the date change to the new millennium.

"Many people may not realize that these systems, some of which we've had for over 20 years, will disappear permanently and that all the applications and data will disappear

with them unless there's been a commitment to offload the data and archives," says Blain.

Data stored on the VM/CMS mainframe will be inaccessible when the pertinent hardware and software are scrapped. The only supported information service still on the system is the financial reporting system, which is being replaced.

A committee with representa-

tives from CCS, Teaching Support Services (TSS) and the Office of Open Learning has been testing new Web-based courseware systems to replace CaDrill, VITAL and CoSy. The group will recommend its selection to U of G's Advisory Committee on Information Technology. For more information, visit the Web site www.tss.uoguelph.ca/courseware or call Aldo Caputo in TSS at Ext. 2936.

A WOMAN OF SUBSTANCE

Former associate VP receives Women of Distinction Award for Lifetime Achievement

BY LORI BONA HUNT

Janet Wardlaw, U of G's former associate vice-president (academic), has always been a woman ahead of her time. She's broken traditions, brought about change and been an inspiration to those who have followed in her path. Her lasting impact will be celebrated this week as she receives the Women of Distinction Award for Lifetime Achievement from the Guelph YMCA-YWCA.

Wardlaw was raised in Islington, then a village just outside Toronto, graduating from a small high school at a time when not many girls were expected to go on to university. She enrolled at the University of Toronto in 1942, majoring in household economics. "I was attracted to that field because it called for a lot of science classes like physics and chemistry, and I liked that," she says.

After graduation, Wardlaw worked as a dietitian for a Canadian Red Cross school meal study. She then attended the University of Tennessee, graduating with a master's degree in public health nutrition. After working as a nutritionist for several years in Michigan and Toronto — and after countless nudges from female professors who "would never let me off the hook" — she went on to earn a PhD in nutrition from Pennsylvania State University.

Wardlaw's mother, Molly, did not live to see her daughter earn her doctorate. But before Molly died, Wardlaw discovered that her mother had carefully cultivated her daughter's education plans. Starting when Wardlaw was a young girl, her mother began preparing her more traditional father for the fact that their daughter would expect to go to university. "She did a really good job because I never would have known that he didn't expect me to go on to college and beyond," says Wardlaw. "I never felt any pressure to stay at home."

She joined U of G in 1966 as a professor in the Department of Foods and Nutrition and was appointed to a committee searching for a dean designate to revamp the curriculum of the Macdonald Institute. The world was changing; there were more women in the workforce, and areas such as child and consumer studies were becoming increasingly important. The Macdonald Institute had always been considered a leader in the home economics field, so any revisions would have a ripple effect, she says. "It was terribly important. We were looking for ways to



modify the program to meet the changing needs of society."

After several months of searching, Wardlaw grew frustrated. So she resigned from the committee and applied for the job herself. "It was a very difficult decision and quite presumptuous of me, but I felt it was something I should do."

She got the job as dean designate and slowly began the re-vamping process. She started with a survey seeking the opinions of alumni, then held lunchtime "brown bag briefings" for faculty and students. One of the undergraduate students at those "brown bag" sessions was Prof. Donna Woolcott, now chair of the Department of Family Relations and Applied Nutrition. "She became a very powerful role model from the moment I first met her," Woolcott says of Wardlaw.

With the support of faculty, students and alumni, Wardlaw transformed the Macdonald Institute into the College of Family and Consumer Studies, a leader in its field in North America. "It was quite an achievement to capture the support of the many

generations that were represented," Woolcott says.

Wardlaw was later named college dean — the only female dean at the time — a position she held for 15 years. In 1984, she became the first woman to break into the executive ranks at U of G by being named associate vice-president (academic). "I never, ever expected to be an administrator," she says. "When I was working on my PhD, one of my professors lined us up in the hallway one day and said: 'Some of you will have to be academic administrators one day.' I can still see her pointing at me. I remember thinking 'Oh, come on, no way.'"

During this time, Wardlaw was also named the first female chair of the board of governors of the International Development Research Centre (IDRC), a position once held by former prime minister Lester Pearson. The centre brings together researchers from developing nations and Canada.

But Wardlaw says she never really thought about her "first woman" status. She was in a field dominated by women and always had a lot of female professors. "I didn't have any of that 'men-are-a-threat' baggage when I became an administrator," she says. "Every now and then, especially when I would go to functions in the States, people would ask: 'Isn't it hard working with all those tough men?' I would say: 'Sometimes I'm the tough one.'"

Wardlaw retired from U of G in 1987 and continued to chair the IDRC until 1992. Now, she fills her time volunteering for numerous community agencies and remains connected to the University, sharing an office on campus with other retired professors. When asked how she feels about the lifetime achievement award, she smiles. "I never thought of it as a 'lifetime of achievement.' A lot of great opportunities just came my way. I think I encouraged some people to do things with their lives, at least I hope I did."

Woolcott agrees. When considering a leadership position on campus a few years ago, she asked Wardlaw what makes a good leader. Taking pleasure in her colleagues' achievements was one of Wardlaw's answers. "She does take great pleasure in the success of others," says Woolcott. "She contributes in major ways to their success, yet takes none of the credit or glory. She continues to be a powerful role model for me. I draw inspiration from her as a woman and as a leader."

PHOTO BY DEAN PALMER/SCENARIO IMAGING

A Virtual Walk in the Park

Undergraduate's project will allow Web users to click and point their way through Donald Forster Sculpture Park

IT WAS WHEN "MOUNTAINS" began appearing in the grounds of the Macdonald Stewart Art Centre (MSAC) that fine art student Shauna Cake realized that model construction wasn't necessarily her strong suit. She'd decided she needed to build an old-fashioned scale model as part of her fourth-year assignment to create a computer-generated dimensional map for the Donald Forster Sculpture Park adjoining the art centre, a map that she will now use to design a first-ever Web page for the park.

But when the grounds began to assume a decidedly hilly topography, Cake realized she'd chosen an inappropriate scale to work with. Her next attempt was better, although she still turns up her nose at some of the model's trees, which she fashioned out of wire, glue and spongy mate-

rial. "I learned that model building is not my calling," she laughs. "Nature does it better."

What she does better, she says, is the subsequent photography and graphic design that have come together in an attractive poster-sized schematic of the MSAC building and grounds. Her work was on display recently in the Department of Environmental Biology graphic arts studio, where she has worked full time as a graphic artist for the past year.

That display represented part one of her independent studies course assignment for MSAC director Judy Nasby. Part two to be started this summer is the design of a new information brochure for visitors to the sculpture park, and development of a section in a brand-new MSAC Web site that will allow computer users to take a virtual stroll through the garden.

Cake was one of two undergraduates selected for last semester's course from among 20 students who had taken the earlier museum studies course offered jointly by MSAC and the School of Fine Art and Music. The second student selected last term, Michael Neerhof, wrote a manual on the care and handling of paintings for use by the art centre's student employees.

The idea for Cake's project came when Nasby asked her about designing a dimensional map along the lines of something Nasby had seen for an arts complex in Spain.

Cake consulted with landscape architects, researched prospective graphics packages and looked at other art gallery and museum Web sites. She photographed the MSAC building and grounds as well as her scale model, digitized both sets of photographs for use in creating com-

puter drawings, then married those drawings in a single image of the sculpture park.

By next winter, Cake will be ready to add her project to the art centre's Web site, which was designed and donated by fine art graduate Marion Manning and launched May 1. Starting at the main page, computer users wishing a more detailed view of the sculpture park will be able to visit Cake's page to amble around the grounds on a virtual tour and click on individual artworks for close-up views and information.

Nasby says the new Web site is "one of the most comprehensive and innovative public gallery sites in Canada." Referring to Cake's work, she adds: "We wanted our Web site to be outstanding for its artistic quality. Worldwide, there are not many art galleries or museums that have this kind of detailed dimensional

map of interior or exterior spaces. I liked that very much, being at the forefront of this kind of sophisticated information gathering and displaying it on a Web site."

Gesturing toward Cake's display set up recently in the Graham Hall studio, where she assists in photography and graphic arts projects for research and teaching around campus, photographer Don Hamilton says: "This is skills development, personality development."

Cake's after-hours work with camera and computer garnered her fourth place for a series of acetate images in the juried art show during this year's College Royal. In another part of that show, she documented what she calls the "dance" of sleep through mural-sized black-and-white photographs.

BY ANDREW VOWLES

Teaching Is Not a One-Way Performance: Fischlin

Continued from page 1

Being willing to consider the merits of novel literary forms is an example of the kinds of innovative ideas he looks to use in the classroom.

Another is his resurrection of a long-neglected device, commonplace books, in which students are encouraged to store away thoughts — day-to-day stories, vignettes, dreams, even those midnight "aha's" — that might overlap with their academic readings and ideas discussed in the classroom.

More than glorified journal writing, this exercise in self-discovery traces its roots to Renaissance writer Michel Montaigne, the reputed father of the essay form. "It links them up to a historical writing practice," says Fischlin. "It makes them feel like they're doing something that has historical purpose."

For Jennifer Ailles, who took his undergraduate Shakespeare class to fulfil a degree requirement and is now pursuing her master's on *Romeo and Juliet*, using and creating a commonplace book proved to be "one of the most rewarding experiences of my undergraduate career."

She recalls a creative assignment in which she wrote a series of fictional letters "discovered" by Indiana Jones that provided a possible set of motives for the actions of characters in *Macbeth*.

"To this day, I keep the bundle of *Macbeth* letters, tied neatly with a leather string, on my bookshelf as a reminder of the excitement and the world of possibility that I felt. I look forward to the day when I am a professor and can give my own students the same opportunity that Daniel gave me."

Fischlin, who sees himself more as mentor and "fellow learner" than

as the voice of authority behind the lectern, describes the classroom as "a performance space."

"What we often forget is that it's not a one-way performance," he says. "A number of my classes have been generated by students who engage in dialogue and who actively disagree with me. You enter into a general dialogue where students see you responding, with respect, to what they think."

He says he thrives on the excitement and enthusiasm of "teaching in the moment" despite the occasional sense of "walking the knife's edge."

"You have a game plan, a larger sense of the content issues you want to address, but you're not quite sure

how you're going to get there," he says.

Fischlin recalls one student who challenged his "conservative" interpretation of a particular Shakespeare passage. Rather than sidestep the issue, "I opened up the class to a debate and produced a perhaps more radical reading than I'd thought possible."

Described by colleagues as "one of the outstanding literary scholars of his generation," Fischlin also earns kudos from students, more than 200 of whom signed his nomination form received by OCUFA. Wrote one student in words that appear on the OCUFA citation: "Daniel is the only professor I have known

in seven years of university study willing and ready to read bloodied pages."

A longtime guitarist and lutenist, Guelph's "Renaissance man" found his way to literature through music of the period. Fischlin points to the parallels between his use of improvisation in the classroom and his love of experimental jazz. Formerly fund-raising co-ordinator of the Guelph Jazz Festival, he is now co-editing a book — *The Other Side of Nowhere: Jazz, Improvisation and Cultural Theory* — with fellow English professor Ajay Heble, who heads a research project related to the Jazz Festival that recently received federal funding through the Centre for Cul-

tural Studies.

Perhaps not surprisingly, Fischlin's own most memorable teachers were people who had actively engaged students in learning. He recalls one instructor years ago who, then in his mid-60s, pinned a student against a wall while giving his non-plussed classmates a broad wink. The lesson for Fischlin: "Authority is not what he was about. Passion for learning was what he was about. Authority comes from study and discipline, but it also comes from the ability to wink out of the corner of your eye and say there's an element of passion, a love for what you do."

BY ANDREW VOWLES

MET Methodology Raises Concerns

Continued from page 1

graduates. Follow-up phone calls were conducted by institutions between mid-March and April 4, 1999. An impressive overall response rate of 54 per cent was achieved.

Guelph did equally well in graduation rates, although Grant believes that the methodology adopted by MET's pilot project seriously underestimates Guelph's true graduation rate. "We have communicated our concerns to both COU and MET and hope that next year's process will accommodate our unique institutional circumstances," he says. He notes that MET's methodology is quite different from that used by *Maclean's* magazine.

According to the ministry's calculations, the overall graduation rate

for all programs at U of G is 72.4 per cent. This is higher than the system average of 70.8 per cent for all programs.

The MET methodology involved the selection of all full-time year-one undergraduate students who were registered at the institution on the official fall 1990 count date and who were seeking either a bachelor's or first professional degree. This cohort was tracked between 1991 and 1997 to determine if a student had graduated from a program.

Grant notes that the initial methodology disadvantages Guelph because of its semester system. "Guelph is one of the few institutions that conducts academic review after one semester of study, and the

flexibility provided by the semester system, coupled with our multiple-entry points, means that many first-year students in the fall of 1996 were, in fact, admitted in previous semesters."

Grant estimates that Guelph's accurate graduation rate of "new" semester one students admitted in fall 1990 and who continued their studies in the winter 1991 semester is probably closer to 77 or 78 per cent, which "would place the University of Guelph in the top among comprehensive universities in Canada."

The 1998 default rates reflect the repayment status of students (undergraduate and graduate) who were issued Ontario student loans in the 1995/96 academic year, did not re-

ceive an Ontario student loan in 1996/1997 and defaulted on their repayment obligations about two years after graduation. Student loan recipients/defaulters are, for purposes of calculating default rates, assigned to the last institution/program they attended in 1995/1996. The status of these loans was assessed as of July 1998 or about two years after entering into repayment. The 1998 default rate for all programs at U of G is 10.6 per cent. This compares with 12.3 per cent for all programs at Ontario universities.

For full performance indicators by program, visit the Web site www.uoguelph.ca/OSAPindicators.

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OAC Proposes Ties with South African College

Preliminary discussions under way to develop training and curriculum programs



Richard Awumey of Fort Cox College in South Africa, centre, meets with OAC international development director Frank Eady, left, and OAC dean Rob McLaughlin to discuss links with the college.

PHOTO BY MARTIN SCHWALBE

South Africa's Fort Cox College of Agriculture and Forestry hopes to benefit from the expertise of the Ontario Agricultural College in developing training programs that address the needs of the post-apartheid era.

Preliminary discussions are under way to develop training and curriculum programs that build entrepreneurial skills and develop key growth areas of continuing education, horticulture, food science and nutrition at Fort Cox College. Richard Awumey, principal of the South African college, visited U of G earlier this year, and Frank Eady, OAC's new director of international development (see story below), visited Fort Cox last month.

The South African project is part of OAC's strengthened focus on international development, says OAC dean Rob McLaughlin, who visited Fort Cox two years ago.

"The two colleges have different

contexts but also similarities, and we can learn from each other," he says. "Both colleges used to be part of a government ministry and both have close connections to a university (Fort Cox is closely affiliated with Fort Hare University). And there is a need for both colleges to become more entrepreneurial and focused."

Awumey, who toured Alfred, Kemptville and Ridgetown colleges and the Horticultural Research Institute of Ontario (now part of the Department of Plant Agriculture) while in Canada, says his institution can benefit greatly from OAC's knowledge.

"The environments of the two colleges are different, but the basic principles underlying them are similar," says Awumey. "We want to tap into the experiences of OAC to see what works for us."

His college needs training programs that teach entrepreneurial

skills and meet the needs of the land-based sector. The college also needs to develop continuing education programs to help South Africans deal with the issue of land restitution. Under apartheid, blacks were prohibited from owning and working land, but the post-apartheid era has seen the return of lands to their owners, says Awumey. Fort Cox wants to develop short courses and distance learning programs that will teach people how to produce food and fibre from their reinstated lands.

Established in 1930, Fort Cox College has 234 students, half of whom are female. It teaches animal production, crop production, home economics and farm management in agricultural programs. It also teaches community forestry, which promotes community involvement in managing forest resources such as medicinal plants and firewood.

BY MARGARET BOYD
OFFICE OF RESEARCH

College Names Director of International Development

Role is to search out international business opportunities

FRANK EADY, former director of the Horticultural Research Institute of Ontario (HRIO), has been named director of international development for the Ontario Agricultural College.

Eady's new role is to actively search out new international business opportunities for OAC departments and to "shepherd" the process of putting together partnerships and proposals that meet the goals of funding agencies for international development projects. He will also

develop international partnerships in conjunction with the Ontario Ministry of Agriculture, Food and Rural Affairs and its affiliations with the Ontario Veterinary College, Laboratory Services and the agricultural colleges of Alfred, Kemptville and Ridgetown.

The new position will build on OAC's good track record in international work, says Eady, who will work closely with faculty and with the Centre for International Programs (CIP). CIP director Prof. Jim

Shute says he is looking forward to working with Eady and expanding international opportunities for OAC.

"A large part of this position is to identify opportunities, build relationships with funding sources and other institutions, and promote international development," says Eady.

HRIO director since 1983, Eady will spend 80 per cent of his time as director for international development and 20 per cent conducting horticultural research. He will work primarily from an office in Vineland.

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A STITCH IN TIME

Staff members in the Office of Registrarial Services teamed up to create this quilt to enter in a national breast cancer survival project called "The Quilt: A Celebration of Survivors." The quilts are on display at the Stratford-Perth Museum until October and will be sold in November to benefit the Canadian Cancer Society. From left are Bonnie Palmer, Judy Kerr, Karen Atkinson, Sharon Beach, Stella Holley, Karen Vandivier, Joanne Poluch, Debbie Kron and Pat Dawkins.

PHOTO BY MARTIN SCHWALBE

Educational Cartoon Series Depicts Safety, Equality Issues Affecting Women

Series illustrates factors that affect climate for women on university campuses

THE HUMAN RIGHTS and Equity Office (HREO) has developed a series of original and realistic cartoons that depict safety and equality issues affecting women on university campuses. The "Respect Women!" cartoon series is being featured in the *Ontario* and has been duplicated on posters around campus. It will run into the winter 2000 semester.

The concept for the educational cartoon series was developed by Jodie McConnell, acting director of HREO, who received a women's campus safety initiatives grant to fund the project proposal.

"I chose the cartoon format as a means to reach people who are less likely to read an article or consciously learn about women's op-

pression," says McConnell. "The cartoons allow us to illustrate complex power dynamics and provide a straightforward educational message."

She hopes the cartoons will increase the awareness of even the most unsuspecting reader. The cartoons are directed at a student audience, but contain important messages for all members of the University community, she says.

The series illustrates incidents of sexual harassment, date rape, racism, homophobia, ableism and other factors that affect the climate for women on campus. They depict scenarios that occur in a variety of university environments, including a residence, a classroom, an academic conference, during Frosh

Week, after a sports event and in a bar. The characters include students, staff and faculty members and are purely fictional, McConnell says.

Human rights consultant Mahejabeen Ebrahim and education and special projects co-ordinator Celina Sousa were involved in developing the scenarios for the cartoons. They based the scenarios on the type of incidents of harassment and discrimination against women that are reported on university campuses.

The artwork for the series was created by Robin Baird Lewis, a local cartoonist and illustrator who is a graduate and former employee of U of G.

For more information about this initiative, call the Human Rights and Equity Office at Ext. 3000.



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APPOINTMENTS

Shawki Areibi of Waterloo will become an assistant professor in the School of Engineering June 1.

Prof. David Evans has been appointed chair of the Department of Molecular Biology and Genetics for a five-year period that began May 1.

Stephen Henighan of North Gower, Ont., joined the School of Languages and Literatures as an assistant professor Jan. 1.

Prof. Jorge Nef of the Department of Political Science joined the College Faculty of Environmental Design and Rural Development Jan. 1.

Siobhan Lambert-Hurley will

join the Department of History as an assistant professor Aug. 1.

Profs. Harry Lane and Christine Bold have been named acting co-directors of the School of Literatures and Performance Studies in English until July 1, 1999.

Prof. John Leatherland has been reappointed chair of the Department of Biomedical Sciences for a five-year term that begins in August 1999.

Jean Mayer will join the Department of Political Science as an assistant professor Aug. 15.

Prof. Kevin Parton was appointed chair and professor in the

Department of Agricultural Economics and Business Jan. 1.

Prof. David Rapport of EcoSystem Health joined the College Faculty of Environmental Design and Rural Development Jan. 1.

Stephen Kosempel will join the Department of Economics as assistant professor Aug. 1.

Marcel Schlaf of the Brookhaven National Laboratory in Upton, N.Y., was appointed assistant professor in the Department of Chemistry and Biochemistry Jan. 1.

Simon Yang of Edmonton will join the School of Engineering as an assistant professor Aug. 1.

Centre Six Renovations Scheduled for Summer

New campus food outlets cater to changing trends

PITAS AND PASTA — hot commodities in campus eateries across North America — will be added to the smorgasbord of food choices in the University Centre food court during this summer's planned renovations of a section of Centre Six. Hospitality Services will install a pita bar where the submarine sandwich outlet is currently located and put a pasta bar where Nature's Best now sits.

Dave Boeckner, director of Hospitality Services, says the project will allow the food court to attract new customers hungry for pitas and pasta. "We didn't have made-to-order pastas in Centre Six," he says. "They're extremely popular in Creelman Hall, and we want to offer the same selection in Centre Six."

To accommodate the additions without losing current Centre Six offerings, Nature's Best will move into adjacent space currently occupied by a deli counter. Both the deli and submarine counters will be relocated to new kiosks, along with a new soup bar, on the east side of the food court backing on to the UC courtyard.

The only outlet in that section of Centre Six to be left untouched during the renovations will be the Tim Horton's franchise.

The renovations will begin June 21 and are expected to be completed

before the start of classes in September. Because the renovations are minor, there will be little disruption of service for Centre Six users this summer, says Boeckner.

The project will be funded through non-exclusive agreements with the University's food service business partners.

This summer's project represents the second phase of upgrades that began last summer with construction of a solarium and renovation of the seating area at the north end of the UC.

The University had planned to completely renovate the Centre Six food court this year, says Boeckner, but facing a tight timeline and provincial building code restrictions, Hospitality Services decided to break the project into three bite-sized chunks. Renovations in the remainder of the food court will be completed in subsequent years.

In another project this summer in the Mountain Hall dining room in South Residences, Hospitality Services will renovate the kitchen and convert part of the dining room into a coffee house, along the lines of Pages above the University Bookstore and the Daily Grind in the UC. As with those two existing outlets, the new coffee house will be operated by the University and will offer

specialty beverages, gourmet desserts, sandwiches and salads.

The first coffee house to be built in a U of G residence, the new 130-seat facility will serve the roughly 1,700 students living in South Residences. The space will include three lounges with couches and televisions and a central area with tables and chairs.

"Coffee houses are a growing trend, especially in the university and college market," says Boeckner. In an article on that very topic in the March 1999 issue of *On-Campus Hospitality*, both Pages and the Daily Grind received prominent coverage, along with similar facilities in two colleges in Pennsylvania and New Hampshire. The magazine is published in New York and distributed to food-service and hospitality managers at universities and colleges across North America.

Noting that U of G routinely plays host to hospitality managers, such as the recent U.S. visitors who came to view Creelman, Boeckner says Guelph has always tried to be a leader in the food-service business.

"Coffee houses are springing up all over the city, and it's important that we develop new concepts to stay market-focused and competitive."

BY ANDREW VOWLES

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Two-bedroom apartment in private home, laundry, cable, central air and vac, two blocks to campus, on bus route, non-smokers, no pets, no parking, Ext. 6528 or 822-2336.

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Time share featuring wide choice of resorts and locations, one or two weeks available at \$400 U.S. per week, accommodates up to four people, Dorothy, leave message at 822-4295.

Furnished room near campus, private entrance and kitchenette, laundry, parking, non-smoker, no pets, available in September, \$325 a month inclusive, leave message at 763-1236.

Two-bedroom apartment in south end, large bright walkout, private entrance, parking, laundry, air, suitable for professionals or mature students, non-smokers, no pets, available June 1, \$800 a month inclusive, Ext. 2936 or 766-9289 after 5 p.m.

One-bedroom apartment on eighth floor, close to Stone Road Mall, on bus route, 15-minute walk to campus, parking, laundry, pets allowed, available June 1, \$625 a month inclusive, 821-6490.

One-bedroom apartment in Paris, France, and holiday home in Antibes on French Riviera, Nicole, 836-6745.

Three-bedroom condo at Kortright and Gordon, 10-minute walk to campus, three baths, garage, central air and vac, immediate occupancy, \$1,200 a month, utilities not included, leave message at 821-9961 days or 827-1375 evenings.

Two-bedroom cottage in Georgian Bay on island overlooking Killbear Provincial Park, Ken, 822-2125 days or 822-7705 after 7 p.m.

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CPR and first-aid courses, 763-6909 or send e-mail to netzell@uoguelph.ca.

Experienced housesitting by mature couple, references available, looking for Sept. 1, Don or Dawn, 836-5106.

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Classical guitar, good quality, full size, Ext. 6693 or 763-4381.

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Oak dining room table, with or without chairs, light colour, rectangular, no larger than 60 by 42 inches, leave message at 658-8254.

Apartment for U of G employee with two large, quiet dogs for July or August, references, will consider sharing accommodation, 763-0994.

Apartment or house for professional couple, central location preferred, for September 1999 only, 823-9394.

House or apartment for two adults and well-behaved child for month of July, 867-669-9115 or send e-mail to sophie@ssimicro.com.

Furnished room for fourth-year student in quiet house for Sept. 1, parking, laundry, downtown or country location, references available, send e-mail to ebayle@uoguelph.ca.

Two-bedroom condo, house or apartment for married couple for end of August or beginning of September, close to campus, rent under \$600, 403-327-6816 or send e-mail to heigt@uleth.ca.

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Classifieds is a free service available to U of G staff, faculty, students, alumni and retirees. Submit items by Wednesday at noon to Linda Graham, Level 4, University Centre, fax to 824-7962 or send e-mail to lgraham@exec.admin.uoguelph.ca. For external and commercial advertising, call Brian Downey at Ext. 6665 or send e-mail to bdowney@exec.admin.uoguelph.ca.

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ARBORETUM

Horticulturist Henry Kock will lead garden history walks June 7 and 9 at 7 p.m. Topics to be discussed include the origins of formal gardens and the culinary use of dandelions. Cost is \$26. Registration and payment are required by May 31. To register, call Ext. 4110.

The Arboretum and NEST present "Hooray for Summer!" June 6 from 1 to 4 p.m. at the nature centre. Children's activities include pond dipping, making leaf prints and exploring insect habitats. Admission is free.

In the Hospice Wellington Lilac Garden, a lilac tree will be dedicated in memory of loved ones May 30 at 2 p.m.

ART CENTRE

The Macdonald Stewart Art Centre is extending its summer hours thanks to increased funding from the Canada Council for the Arts. Normally closed to the public in August, the art centre will be open Tuesday to Sunday from noon to 5 p.m. throughout the month. Summer art camps for children aged seven to 12 will extend through August, as will the exhibitions "Verne Harrison: Museum Chronicle A Postmodern Parody," "Ron Shuebrook: New Acquisitions, Paintings and Drawings 1985-1997," "Greg Murphy: Fragments," "Sowing the Seeds: 125th Anniversary of the Ontario Agricultural College" and "New Acquisitions in Inuit Art."

"Rock Experience," a percussion performance incorporating stories by Guelph musician and artist Jesse Stewart, runs June 5 at 1:30 p.m. at the art centre. The free concert is part of the Guelph Spring Festival.

LECTURES

Arun Majumdar of the Department of Computer Science and Engineering at the Indian Institute of Technology, will give two public lectures as Winograd Visiting Professor in the Department of Computing and Information Science. His topics are "Transaction Modelling and Concurrency Control in Active Database Management Systems" May 19 and "An Object-Oriented Approach to High-Level Synthesis of Digital Circuits" June 2. Both lectures begin at 11 a.m. in MacKinnon 223.

Karlheinz Altendorf, a microbiology professor at Germany's Universität Osnabrück, will give two public lectures as Wellcome Visiting Professor in the Basic Medical Sciences. On May 25, he discusses "The Osmosensory Mechanism of the Sensor Kinase KdpD of *Escherichia coli*" at 3:30 p.m. in OVC 1714. On May 26, his topic is "The Kdp-ATPase of *Escherichia coli*, a K⁺-Translocating P-type ATPase of Unique Subunit Composition" at 3:30 p.m. in OVC 1713.

NOTICES

A memorial tribute and dedication for professor emeritus Charles Smith, Animal and Poultry Science, who died June 16, 1997, will be held May 30 at 3 p.m. on the site of a living memorial established in his memory at the Arboretum. (In the event of inclement weather, the event will be held inside the Arboretum Centre). Prof. John Gibson, Animal and Poultry Science, will lead the tribute. Friends and colleagues are invited to come and share their thoughts and memories.

U of G prohibits harassment or discrimination on the basis of human rights in work, study, residence and other areas of university life. Any student, staff or faculty member with a concern or complaint about possible harassment or discrimination can seek confidential information and advice from the Human Rights and Equity Office, 15 University Ave. E., Ext. 3000.

The Stress Management and High Performance Clinic will offer a program to promote better sleep beginning May 25. The five-session program will meet Tuesdays from 5:30 to 6:30 p.m. in UCC 442. Cost is \$50 general, \$20 for U of G students. For more information, leave a message at Ext. 2662 or visit the Web site www.uoguelph.ca/~ksomers.

The International Development Research Centre seeks proposals for collaborative interdisciplinary research designed to enhance understanding, methodology and capacity to use natural resource management or ecosystem approaches to the improvement of human health in agro-ecosystems. Proposals should be developed jointly by collaborating institutions. Application deadline is July 16. For more information, fax to 613-567-7749, send e-mail to ecohealth@idrc.ca or visit the Web site www.idrc.ca/ecohealth/index.html.

The Participatory Development Forum will hold a conference on "Deepening Our Understanding and Practice: A Conference on Participatory Development and Beyond" Aug. 25 to 27 in Ottawa. Full details are available on the Web at www.caicd.ca.

The Alliance for Historic Landscape Preservation presents a conference titled "Borderlands: The Shared Canadian and U.S. Experience of Landscape" June 2 to 5 at Niagara-on-the-Lake. Academics and practitioners from across North America will present papers and conduct a community workshop. For more information, call Prof. Nancy Pollock-Elward, Landscape Architecture, at Ext. 6577 or send e-mail to nellwand@la.uoguelph.ca.

The Going Global program of the Association of Universities and Colleges of Canada (AUCC) offers grants of up to \$5,000 in the field of science and technology to cover the

travel costs of Canadian university professors and researchers going to Europe or their counterparts coming to Canada. AUCC will provide two-thirds of the total costs. Application deadline is June 15. For application forms and information, call 613-563-1236 or send e-mail to mdealmei@aucc.ca or lvadzis@aucc.ca.

The Office of First-Year Studies is looking for Guelph faculty or staff who are (or were) parents (or partners) of U of G students to participate in a panel discussion at the upcoming START for Families program. The program will run June 26 and July 6, 17 and 23. For more information, call Roberta Mason at Ext. 2365.

The Gryphon Track and Field Camp for children eight and up returns this summer, led by Gryphon head coach Dave Scott-Thomas. Two camp sessions are planned — July 12 to 23 and Aug. 9 to 13. For more information, call Ext. 3430.

The International Development Research Centre (IDRC) offers internship awards to provide exposure to research for international development through program work and research under the guidance of IDRC staff. Internships run four to 12 months in Ottawa or at a regional IDRC office. Application deadline is Sept. 15. For information, call the IDRC at 613-236-6163, Ext. 2098, fax to 613-563-0815, send e-mail to cta@idrc.ca or visit the Web site www.idrc.ca.

The Health and Performance Centre is sponsoring a "Kids in Action" photo contest. Cash prizes of \$100, \$50 and \$25 will be awarded. Entries must include the name, age and phone number of the child. Submission deadline to the centre is June 15.

The Inter-American Institute for Co-operation in Agriculture in Canada offers an internship program for Canadian and Latin American professors, agricultural researchers, post-graduate students and specialists from the agricultural public and private sectors interested in developing a co-operative and/or work relationship with Latin American and Canadian universities and research centres. Application deadline is June 30. For information, call Mario Seixas or Raymond Dugas at 613-230-1044, send e-mail to rdu@iicacan.org or visit the Web site www.iicacan.org.

SEMINARS

The Department of Pathobiology seminar series continues May 21 with Prof. Robert Foster on "Becoming a Board-Certified Pathologist — the Certifying Examination of the American College of Veterinary Pathologists" and June 4 with Peter Borgs on "Organic Chromium: an Element of the Immune Response." The seminars begin at 2 p.m. in Pathobiology 2152.

The Department of Human Biology and Nutritional Sciences seminar series continues May 31 with Paul Pencharz of the University of Toronto discussing "Aromatic Amino Acid Requirements in Children with PKU Determined Using LAO" at 3 p.m. in Animal Science and Nutrition 141.

THESIS DEFENCES

The final examination of Trevor Newton, an M.Sc. candidate in the Department of Chemistry and Biochemistry, is May 20 at 2 p.m. in MacNaughton 222. The thesis is "Mechanistic Studies of Methionyl-tRNA Formyl Transferase and the Importance of Formylation in Eubacteria." The adviser is Prof. Dev Mangroo.

The final examination of M.Sc. candidate Glenn Wagner, Zoology, is May 21 at 9 a.m. in Axelrod 265A. The thesis is "Investigation of Effective Fish Surgery Techniques." The adviser is Prof. Donald Stevens.

The final examination of Steeve Giguère, a PhD candidate in the Department of Pathobiology, is May 28 at 9:30 a.m. in Pathobiology 101. The thesis is "Role of the 85-Kilobase Plasmid in Virulence of and Immunity to *Rhodococcus equi*." The adviser is Prof. John Prescott.

The final examination of PhD candidate Jennifer Griffin, Molecular Biology and Genetics, is May 28 at 1 p.m. in Axelrod 222. The thesis is "An Analysis of Tea Domain Proteins." The adviser is Prof. Alan Wildeman.

The final examination of Donna Berry, a PhD candidate in the Department of Human Biology and Nutritional Sciences, is June 4 at 9 a.m. in Animal Science and Nutrition 141. The thesis is "Mechanisms of Monocytic Differentiation and Apoptosis in Acute Promyelocytic Leukemia Cells: Responses to 1 α ,25-dihydroxyvitamin D₃ and All-Trans Retinoic Acid." The adviser is Prof. Kelly Meckling-Gill.

COMMUNITY EVENTS

The Ontario Public Interest Research Group (OPIRG) will hold its 20th Speed River cleanup June 5 starting at 9:30 a.m. Individuals, groups and businesses are invited to form teams of eight to 10, or you can just sign up and a group will be formed for you. An appreciation event for participants will run from 10 a.m. to 5 p.m. at McCrae House, featuring a barbecue, displays and music. The Boathouse will host a community appreciation night June 3 at 8 p.m. for those who have supported OPIRG throughout the years. Rain date for the cleanup is June 12. For more details, call 824-2091.

The Guelph Spring Festival opens May 28 with a gala concert at the River Run Centre and runs until

June 6. The program offerings range from chamber music to jazz and include free community concerts and a day-long Streetfest May 29 from 11 a.m. to 4 p.m. in downtown Guelph. For information, visit the festival Web site at www.freespace.net/~gsf. For tickets, call 763-3000.

The Guelph Off-Road Bicycling Association meets June 1 at 7:30 p.m. on the third floor of the U of G Police Services Building. The association will hold a trail maintenance day May 29 at 9 a.m. at the Trailhead at Victoria Road North near the bridge. Everyone is welcome. For more information, call 821-8013.

The AIDS Committee is hosting a charity garage and bake sale May 29 from 8 a.m. to 3 p.m. at Torrance Public School, 151 Waterloo Ave. For more information or to volunteer your help, call 763-2255.

The Guelph Arts Council offers guided walking tours of historical Guelph on selected Sundays from May to October. Tours last two hours; cost is \$2. Upcoming tours will focus on Victorian Guelph May 23, the city's beginnings June 6 and downtown Guelph June 13. The walks leave from the Guelph Civic Museum.

The Central Ontario Orchid Society will meet May 31 at 6:30 p.m. in Kitchener at the St. Joseph Catholic's Church at Courtland and Madison. "Paphiopedilum" is the topic of guest speaker Claudio Rossi. For more information, call 836-4321.

The Zonta Club of Guelph presents its 15th annual tour of homes June 6 from 11 a.m. to 4 a.m. Tickets are \$15. For information or to reserve tickets, call the Guelph Civic Museum at 836-1221.

Victory Public School will hold its 38th annual dessert party and fun fair May 27 from 6 to 8 p.m. at 135 Exhibition St.

The Royal City Quilters Guild will meet June 8 at 7:30 p.m. at Westwood United Church on Willow Road. Carol Goddu will discuss 3-D appliqué and pictorial quilting. For more information, call Diana Magrath at 836-3933.

The Guelph Creative Arts Association presents its 13th annual "Painting on the Green," a show and sale of art and crafts, June 12 and 13 from 11 a.m. to 5 p.m. at the Delhi Recreation Centre.

The Poetry Break Reading Series at the Take-a-Break Coffee Shop in Pergus will feature Toronto writers Philip Arima and Catherine Jenkins June 4 at 8 p.m. Admission is free.

The second annual Elora spring sculpture show is June 19 from 10 a.m. to 6 p.m. at Victoria Park in Elora.